



Powhite Parkway Western
Extension-Route 288 to
Route 360
Chesterfield County, Virginia

**Virginia Public-Private Transportation Act
Conceptual Proposal**
The Virginia Department of Transportation

March 11, 2003



March 11, 2003

Mr. Malcolm T. Kerley, P.E.
Chief Engineer for Program Development
Virginia Department of Transportation
1401 E. Broad Street
Richmond, Virginia 23219

RE: Public-Private Transportation Act Proposal for the Western Extension of the
Powhite Parkway

Dear Mr. Kerley:

Enclosed you will find twenty (20) copies of our Conceptual Proposal for the Western Extension of the Powhite Parkway project in Chesterfield County, Virginia. According to both the Public-Private Transportation Act of 1995 (PPTA) and the Implementation Guidelines for that legislation, we are submitting an unsolicited proposal to you as representative of the Virginia Department of Transportation, the Responsible Public Entity. In accordance with the PPTA, we are distributing two copies each to Chesterfield County and the City of Richmond.

We are proposing to design, build and finance the Western Extension of the Powhite Parkway in an effort to meet the regional transportation needs in Chesterfield County for many years to come, providing a seamless transportation corridor in a cost effective and timely manner. We believe that our concept to provide this improvement is innovative and represents a true partnership between the Virginia Department of Transportation and the private sector-as envisioned by the PPTA.

The Powhite Parkway Partner's Team appreciates the opportunity to submit this proposal for this critical transportation improvement. We are confident we have assembled a first-class team that will design, build and finance the Western Extension Project for a fixed price and fixed schedule.

Our team stands ready to address any questions the Virginia Department of Transportation may have regarding our proposal and we look forward to working with you in advancing this project.

Sincerely,

Michael E. Post
Manager
Powhite Parkway Partners, LLC





COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION
14011 EAST BROAD STREET
RICHMOND, VIRGINIA 23219-2000

PHILIP A. SHUCET
COMMISSIONER

February 20, 2003

Mr. Garry A. Palleschi
Shirley Contracting Company, LLC
8435 Backlick Road
Lorton, Virginia 22079-1498

Dear Mr. Palleschi,

On February 14, 2003, you sent a letter to Malcom T. Kerley, P.E. requesting that certain information submitted as part of an unsolicited conceptual proposal be treated as confidential and proprietary.

In accordance with the applicable statutes governing such matters (Section 2.2-3705.A.56 of the Code of Virginia), I am granting your request that the section of your proposal identified as "Tab 3 – Conceptual Plan of Finance" be held confidential and proprietary subject to the following:

- The official submittal of your conceptual proposal that will be available to the public clearly defines and identifies the use of all public funds and other financial commitments of the Commonwealth, affected local jurisdictions, or political subdivisions.
- Once the posting period and the potential submission of a competing proposal period have passed, the Department retains the right to release the information in Tab 3 to the public.

Sincerely,

Barbara W. Reese
Chief Financial Officer

cc: Mr. Malcolm Kerley, P.E.

VirginiaDOT.org
WE KEEP VIRGINIA MOVING



February 14, 2003

Mr. Malcolm T. Kerley, P.E.
Chief Engineer for Program Development
Virginia Department of Transportation
1401 E. Broad Street
Richmond, Virginia 23219

Dear Mr. Kerley:

Thank you for meeting with us last week to discuss the process of submitting our Conceptual Plan of Finance information to VDOT for consideration of confidential status. Since our meeting we have finalized the information in our Tab 3-Conceptual Plan of Finance for our unsolicited PPTA project, the Western Extension of the Powhite Parkway.

We are requesting that VDOT review the Tab 3 information and we are seeking confidential status of the information contained therein. We understand that a "conditional" level may be granted until such time that the entire Conceptual Proposal has been reviewed by VDOT. If any information should be determined by VDOT to not qualify as confidential, we understand that we would be afforded a meeting to discuss what can and cannot be kept confidential.

Thank you for your time and we look forward to taking the needed steps for submitting our Conceptual proposal. Should you have any questions, please call me at 703-550-3579, or Clark Bottner at 703-550-1120.

Sincerely,

A handwritten signature in black ink, appearing to read "G. Palleschi".

Garry A. Palleschi

Enclosure; Tab 3 Conceptual Plan of Finance
(via overnight mail)

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Executive Summary

The Project

The Powhite Parkway Partners, LLC (PPP) team is pleased to submit its proposal for the Western Extension of the Powhite Parkway to the Virginia Department of Transportation (VDOT). The scope of the Project includes designing, building and financing the approximate 9-mile western extension of the existing Powhite Parkway toll road facility from its current terminus at Route 288 and the integration of its operations with those of VDOT's existing portion of the Powhite Parkway and the Richmond Metropolitan Authority's Richmond Expressway System (the "Richmond Expressway System"). Once completed, Richmond and Chesterfield County will have a toll road system that addresses the region's congestion and traffic needs in a cost effective and efficient manner (the "Project").

Given VDOT's budget pressures, insufficient funding currently exists for developing the Western Extension of the Powhite Parkway. Our plan not only addresses the funding shortfall, but also provides VDOT, the City of Richmond and Chesterfield County with the unique risk-sharing benefits and guarantees of an effective public-private partnership. Acceleration of the project will give commuters a real alternative to the capacity condition that currently exists on 360. Furthermore, the timely development of the Western Extension will support the region's tremendous growth potential for decades to come. The integration of the Western Extension with the existing Powhite and the Richmond Expressway System will create a single regional system that benefits from significant economies of scale.

The Team

The PPP team is led by The Clark Construction Group and Shirley Contracting Company, LLC, each of which is respected for their extensive construction experience and noted for providing high quality projects ahead of schedule. The Clark/Shirley combination brings extensive design/build/finance experience to the Project as demonstrated by the Route 28 Corridor Improvements project, a PPTA project in Northern Virginia. Clark/Shirley will lead a team that includes many other experienced firms, some of which are local to the Richmond area. They include:

- EarthTech – One of the nation's largest transportation design/engineering firms, EarthTech will lead the engineering team and be the Engineer of Record. With an established Richmond presence, EarthTech has extensive experience working with VDOT and Chesterfield County, including considerable knowledge of Chesterfield County's plan for the Western Extension of the Powhite Parkway.
- D.W. Lyle Corporation – A Richmond based contractor, D.W. Lyle has extensive experience working for VDOT and, possesses PPTA project experiences.
- Austin Brockenbrough & Associates, LLP - an established Virginia engineering firm with strong VDOT transportation experience and a presence in Chesterfield County.

- Timmons Group - Richmond based consulting engineering firm with infrastructure, development, and planning experience. Timmons has expended considerable effort in developing Chesterfield County's present transportation planning program for the Western Extension of the Powhite Parkway and has also provided much of the design and planning for future transportation projects in this part of the county
- Parsons Transportation Group – The nation's fifth largest transportation engineering firm, PTG has first-hand experience in VDOT's environmental planning and permitting processes.
- Lehman Brothers – One of the nations premier investment banking firms, Lehman has been at the forefront of developing financing for transportation public/private partnerships.
- Cofiroute Global Mobility – Cofiroute Global Mobility is an international leader in toll road technology and operations. Members of Cofiroute Global Mobility developed and implemented the operational plan for the SR 91 Express Lanes in Orange County, California. This project was the nations first fully automated toll road and is recognized for its dedication to customer service.
- Vollmer Associates – Vollmer is one of only three consulting firms whose traffic and revenue studies are generally accepted by the country's financial markets as a basis to issue toll revenue bonds.

Many members of our team are currently working together on other design build projects in Virginia and elsewhere. This experience brings a very important knowledge of the unique challenges and demands of the design/build process. Our team will draw on this knowledge base to meet these challenges and achieve the highest value for the Project, in accelerated Project delivery; in providing the highest level of quality; and in meeting the overall Project budget. Our team is capable of bringing this Project to VDOT and the residents of Chesterfield County on time and on budget.

Plan of Finance

We have developed a uniquely beneficial plan to finance the Project. It will exceed all the requirements of the PPTA process and meet VDOT's stated intent of creating a true partnership between the public and private sectors. The Plan of Finance establishes a mechanism that place risks with those parties most capable of controlling those risks. All funding for the construction of the Western Extension of the Powhite Parkway will be provided by the private sector.

Goal

This proposal is offered in the spirit of partnership envisioned and encouraged by the PPTA. The intent of the proposal is to efficiently deliver - with innovations in financing, engineering and construction - a much-needed improvement to the current transportation infrastructure in Chesterfield County. Members of our team have been involved with this project for many years and a special effort has recently been undertaken to meet with key stakeholders in an effort to build support for our concept. We believe we understand, and have addressed the concerns of the local jurisdictions. We will continue to work to address particular concerns as they are identified in order to provide the best solution for the residents in the Richmond Metropolitan Area and Chesterfield County.

The format of this proposal follows the Implementation Guidelines of the PPTA. Should this Conceptual Proposal meet with the approval of the Commonwealth Transportation Board (CTB), the PPP team will work closely with the members of the Virginia Department of Transportation, the City of Richmond and Chesterfield County to develop and submit a Detailed Proposal. Such a proposal will more specifically detail the design, financing and construction efforts necessary to successfully deliver the proposed improvements.

In accordance with the PPTA Implementation Guidelines and the Commonwealth's Freedom of Information Act, certain information in this proposal, has been deemed "Confidential and Proprietary". This information is included in Tab 3 for review by the Department, The Commonwealth Transportation Board, the City of Richmond and Chesterfield County.

The members of the PPP team look forward to working with and discussing this transportation improvement with each of the various stakeholders at the earliest opportunity.

Qualifications and Experience

1a. Identify the legal structure of the firm, or consortium of firms making the proposal. Identify the organizational structure for the project, the management approach and how each partner and major subcontractor in the structure fits into the overall team.

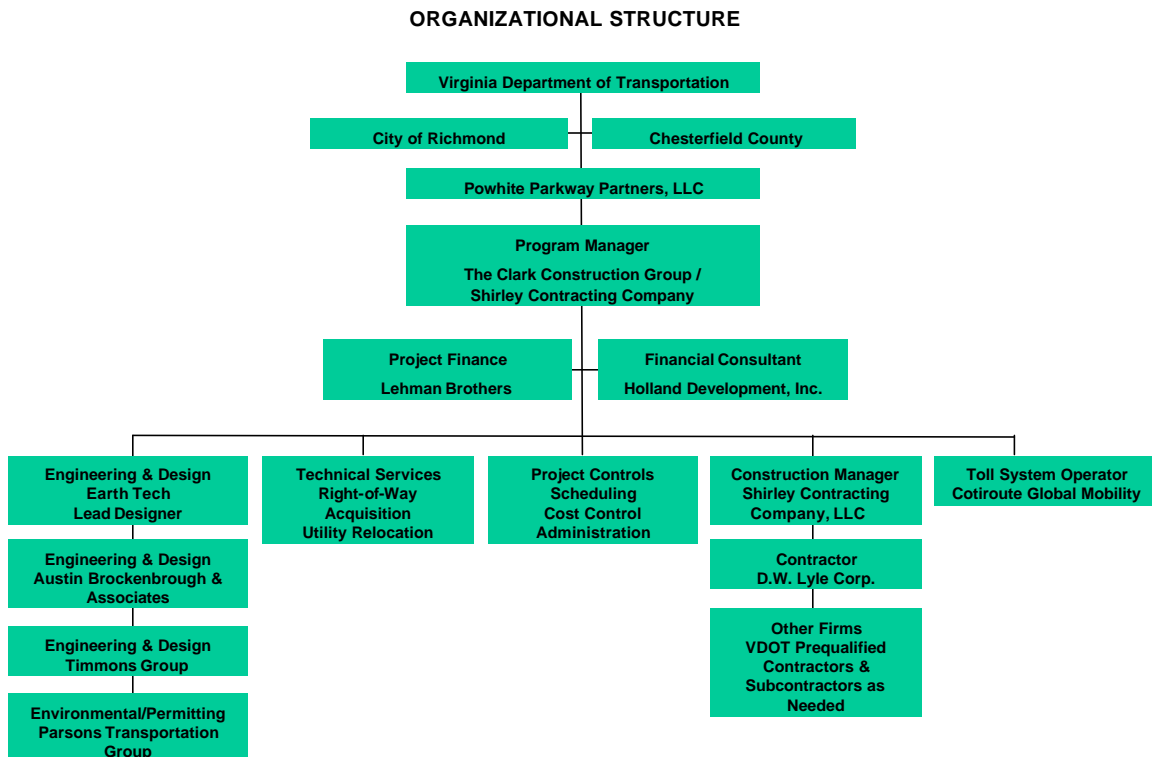
Legal Structure

Powwhite Parkway Partners, LLC (PPP), a Virginia limited liability corporation will be formed to be the developer of the Western Extension of The Powwhite Parkway Program (the Program) and to oversee the business of the projects within the Program. The Project Team will contract with consultants, contractors, and others, including team members, to complete the proposed Program. The members of the Project Team are:

LLC Member		Roles
The Clark Construction Group, Inc. (Clark)		Program Development and Management including design-build-finance management
Shirley Contracting Company, LLC (Shirley)		Program Management & Design Build Construction Management


Organizational Structure

The Project Team has assembled a highly qualified, interdisciplinary team to plan, design, finance, and construct the proposed extension to the existing Powwhite Parkway. Each team member has clearly defined roles and responsibilities, as shown on the Organizational Chart and as described in the table of Team Member Roles and Qualifications on the subsequent pages. Additional team members will be added during the Technical Proposal Phase and thereafter, as needed.



Team Member Roles and Qualifications

	Role	Team Member	Qualifications
	Program Manager	The Clark Construction Group, Inc.	Extensive experience as comprehensive planners, designers, and managers of transportation projects
	Construction Manager	Shirley Contracting Company, LLC	Extensive experience with design management, scheduling, quality assurance of roadway construction in Virginia
	Lead Engineer (Design, Permitting, ROW Acquisition, Inspection, QA/QC)	Earth Tech	Strong national reputation in transportation engineering with extensive proven Virginia experience.
	Survey & Roadway Design, CE&I	Austin Brockenbrough & Associated, LLP	Established Virginia engineering firm with strong transportation experience and presence in Chesterfield County.
	Engineers, Surveyors, Planners	Timmons Group	Richmond Virginia based consulting engineering firm with infrastructure development & planning experience
	Environmental Planning and Permitting	Parsons Transportation Group	Extensive experience in environmental planning and engineering
	Project Finance	Lehman Brothers	Investment banking services to clients worldwide
	Financial Consultant	Clark Ventures	Extensive experience in financing developments including projects in Virginia
	Project Financial Advisor	Holland Development, Inc.	Experience in providing project support analysis, project structuring, financial and funding analysis
	Contractor	D.W. Lyle Corp.	Richmond based Contractor with extensive VDOT and Chesterfield County experience

	Role	Team Member	Qualifications
	Toll System Operator	Cofiroute Global Mobility	Toll System Operations and upgrading of existing systems
Vollmer Associates	Traffic and Revenue Forecasts	Vollmer Associates	Broad and diverse experience in the areas of toll facility feasibility and traffic & revenue forecasts

Management Approach

The Project Team will use a fully integrated, multi-disciplinary management approach, together with efficient internal and external communications, to successfully implement the project. The Program Team members will work closely with staff members of coordinating agencies, including the Virginia Department of Transportation (VDOT), VDOT Central Office and Residencies, Chesterfield County, and other Stakeholders. Our team members are focused on delivering an outstanding project in the minimum amount of time possible—and we are committed to partnering with the VDOT, Chesterfield County, and other agencies and individuals to successfully develop and execute this project.

The Project Team offers VDOT the following benefits:

Availability: The local presence of the members of the Program Team allows for prompt response to any concerns, emergencies, and critical task items.

Efficiency: No unnecessary duplication of functions among the companies exists in the project organization, so operational effectiveness and cost efficiencies are maintained.

Flexibility: The Program Team's working and teaming arrangements are flexible, allowing for change in task scope and work complexity and access to required technology and personnel resources. Team members will be added as needed during the development and execution of this program.

Clear Responsibility: Our program organization has clear lines of responsibility and authority, avoiding confusion regarding responsibilities for performing work under the contract.

Corporate Resources to Accommodate Multiple Projects: The program's organizational structure permits the Program Manager to draw upon the strength and diversity of the firms to be involved. The talent, technologies, and assets of the integrated participants will be used to respond to management and technical challenges. The Program Manager has the authority to assign additional personnel to effectively respond to multiple concurrent projects.

Previous PPTA Experience: The Clark Construction Group and Shirley Contracting Company executed a Comprehensive Agreement with VDOT in September 2002 for the Route 28 Corridor Improvements Project, the first PPTA project in the Northern Virginia region. In addition to the Clark /Shirley PPTA experience, D.W. Lyle Corporation, our Contractor team member, has been extensively involved in constructing segments of the 895/Pocohantas Parkway PPTA project. Additionally, D.W. Lyle and our lead engineering firm Earth Tech, were each involved with the Route 288 PPTA project in Richmond.

The elements of the project—and the aggressive schedule proposed—create an opportunity and a requirement to competitively solicit local and regional engineering firms, geotechnical engineering firms, roadway contractors, and material suppliers to aid the Project Team in this endeavor. Included on the Project Team are two strong local

firms with extensive experience in transportation engineering and direct involvement with Chesterfield County, (Austin Brockenbrough & Associates, L.L.P. and Timmons Group).

The Project Team will add other members to the Team to accomplish this program, with a focus on hiring local firms and only VDOT-prequalified contractors, who have the ability to provide bonds for their work, including disadvantaged business enterprises. For the purpose of this Conceptual Proposal, the core elements of the team have been assembled. The members are highly qualified and are poised to partner with VDOT and Chesterfield County to successfully develop and execute this program.

1b. Describe the experience of each firm and the key principals involved in the proposed project. The lead organization must be identified.

Experience of the Team

The project is being developed by the Powhite Parkway Partners (the Project Team), which is comprised of The Clark Construction Group, Inc., and Shirley Contracting Company, LLC. As Program Managers, The Clark Construction Group, Inc. and Shirley Contracting Company will serve as the organization's co-leaders. The Project Team will individually contract with each of the members of the team to complete the project.

The experience of each team member is summarized below.

The Clark Construction Group, Inc.



Since its founding in 1906, Clark has become one of the nation's most experienced and respected program managers, development managers and general contractors, with annual revenues of approximately \$2.8 billion. Headquartered in Bethesda, Maryland, Clark has eleven regional offices that are strategically located to serve the needs of their clients throughout the United States.

Clark is a diversified entity with the ability to meet the needs of clients on a variety of project types, including heavy/highway projects, new construction and renovation of sports facilities, convention centers, performing arts centers educational facilities, residential, office/corporate, laboratories, airports, rail stations, correctional facilities, waste water treatment and industrial facilities. Projects have been successfully completed for both public and private clients under a variety of project delivery methods including general contracting, construction management, and design/build.

Clark's continued success is founded on the firm's commitment to client service, the dedication of its employees and the support of the businesses and communities with whom it interacts. Clark's philosophy is to deliver the highest level of quality within the industry both on time and within budget and to assure that the standards of today's construction meet the stringent requirements set by the company's founder over 90 years ago. Clark's employees are dedicated to meeting commitments to clients and giving back to the communities in which its employees live and work.

Clark is committed to meeting the needs of its clients on every front. From the initial stages of project development through construction completion and commissioning, Clark provides a wide range of services to meet specific needs of its clients and their projects. Clark's capabilities span multiple facets of all types of construction. From client feasibility studies and preconstruction services, design build delivery methods, construction management, financial analysis and program development, Clark has the specialized expertise required for any type of project.

Clark is one of the nation's most experienced program managers and design/build contractors with a proven track record of successfully delivering projects that meet the client's goals for cost, schedule and quality. Based on

relationships in the development, design and construction industries, Clark can assemble design/build teams to meet unique requirements of each project.

The Clark Construction Group has previous PPTA experience in Virginia teaming with Shirley Contracting Company on the Route 28 Corridor Improvements that was awarded in September 2002.

Clark brings to this project:

- ✓ Extensive Design-Build project experience
- ✓ Over 90 years of national and local development and construction experience.
- ✓ Local market share with a large loyal following of qualified subcontractors and suppliers.
- ✓ A successful record of delivering major projects on schedule, within budget and with uncompromised quality.
- ✓ Proven construction management systems that will preserve the Virginia Department of Transportation's budget and schedule.
- ✓ Public Private Transportation experience in Virginia

Shirley Contracting Company, LLC



Shirley Contracting Company with its main office in Northern Virginia, has provided high-quality, comprehensive construction services to public transportation and highway authorities and private developers in the Washington, D.C. metropolitan area for over 28 years. Shirley Contracting Company enjoys an excellent reputation with the Virginia Department of Transportation having completed many large-scale highway construction projects. Shirley Contracting has earned numerous quality awards for its work and specializes in completing projects on a fast track basis.

Shirley Contracting Company has the capability to handle projects that range from those requiring a few hundred-man hours, to total responsibility for construction of multi-million dollar, fast-track heavy/highway projects. Shirley's experience is a direct reflection of the reputation it has earned as a leader in the construction industry in Virginia.

With over 28 years of experience, SCC offers its clients complete capabilities from preliminary design studies through construction management, construction and closeout.

Shirley Contracting Company has recently completed construction of the \$90 million dollar Phase II/III Springfield Interchange project in Springfield Virginia, at the crossroads of Interstates 95, 395 and 495. Shirley Contracting Company completed the work on the project ahead of schedule earning the company a \$10 million dollar early completion bonus offered by VDOT.

In addition to Phases II/III of the project, Shirley was awarded Phase IV of the interchange reconstruction, a project with a value in excess of \$117 million dollars. Both projects are part of rebuilding of one of the busiest interchanges in the state of Virginia. The estimated construction cost of the entire project is in excess of \$ 650 million dollars.

Shirley Contracting Company along with The Clark Construction Group were recently awarded the first Public-Private Transportation project in Northern Virginia, the construction of six grade-separated interchanges in the Route 28 Corridor in Fairfax and Loudoun County. The Comprehensive agreement was signed in September of 2002 and the project is slated to be completed by 2007.

Shirley Contracting Company has also successfully completed local projects in the Richmond area for Chesterfield County and the City of Richmond, specifically:



- Charter Colony Parkway/Route 60 Widening
- Chippenham Parkway Slope Stabilization

Shirley Contracting Corporation brings to this project:

- ✓ Over 28 years of heavy-highway construction experience.
- ✓ Design-Build project experience-several projects with Earth Tech
- ✓ Excellent working relationships with the Virginia Department of Transportation (VDOT) and Chesterfield County.
- ✓ Public-Private Transportation experience on the Route 28 Project.
- ✓ Extensive VDOT construction experience.
- ✓ Experience in delivering fast-track projects ahead of schedule and within budget.
- ✓ Excellent reputation and relationships with local contractors, subcontractors and suppliers.
- ✓ Award-winning safety programs.

Earth Tech



Founded in 1970, Earth Tech, Inc. has grown and expanded to become a \$1.5 billion per year environmental, transportation, hazardous waste consulting, engineering, and construction firm. Earth Tech has more than 8,000 professional and support personnel in 150 offices worldwide providing a full spectrum of engineering, environmental, remediation, construction, and operations and maintenance services to government, industrial, and commercial clients.

Earth Tech brings to the Powhite Parkway Partners team a flexible resource pool of engineers, scientists, and planners by profession and trade. More Specifically, Earth Tech is:

- The most highly capitalized engineering firm in the U.S.
- Ranked 6th by Engineering News Record (ENR) among overall Engineering and Design firms
- Ranked 9th by ENR in the Top Transportation firms in the country
- Ranked 10th by ENR among Design/Build firms
- Among the Top 10 environmental firms in the country as ranked by ENR
- Ranked 10th by ENR among Bridge Design firms

Our Richmond Global Facilities and Infrastructure Division (Transportation) offers a broad spectrum of capabilities for project development, planning, design, and construction-related services for transportation projects. Earth Tech's Transportation Division staff includes traffic/transportation, civil, structural, geotechnical, hydraulic engineers, and planners, who assist in various analyses and assessments.

Nothing better demonstrates the ability and capacity to perform than an established track record. Earth Tech has proven this record with specific Virginia projects detailed elsewhere in this proposal and with "On-Call" contracts, which require the expertise and flexible depth of resources to perform. Representative On-Call contracts in the transportation discipline performed from the Richmond and Northern Virginia offices, include the following:

- Limited Services Contract, VDOT roadway design services for the Salem, Richmond and Bristol Districts
- Limited Services Contract, VDOT roadway design services for the Lynchburg, Suffolk and Fredericksburg Districts
- On-call Transportation Design Services for Chesterfield County, Virginia
- On-call Transportation Design Services for Hanover County, Virginia

- On-call Environmental Design Services for Goochland County, Virginia
- Open-End Rehabilitation Design Services for Bridges and Highways for the District DOT, Washington, DC
- Comprehensive Transportation Policy And Program, City of Alexandria, Virginia
- Comprehensive Design Services at Baltimore/Washington International and Martin State Airports for the Maryland Aviation Administration, Maryland
- Highway And/Or Bridge Design And Engineering Services for the Department of Transportation, Federal Highway Administration (FHWA), Eastern Federal Lands Highway Division
- Indefinite Quantity Contract for Various Facility Planning and Environmental Planning Projects in the Northern Division 10-State Area for the US Navy, Northern Division, NAVFACENGCOM.
- Environmental Services (IQC) for the National Capital Region, Washington, DC for the General Services Administration, National Capital Region Planning

Earth Tech brings to this project:

- ✓ Over 30 years of diverse design and solution experience
- ✓ Design-Build and PPTA project experience
- ✓ Excellent working relationships with the Virginia Department of Transportation (VDOT) and Chesterfield County.
- ✓ Extensive VDOT Design experience (26 Projects in the last 5 years)
- ✓ Experience in delivering fast-track projects ahead or on schedule and within budget
- ✓ Excellent reputation and relationships with local contractors, subcontractors and suppliers
- ✓ Experience in toll road operation and capital construction programs

Austin Brockenbrough & Associates, LLP



AB&A is a Chesterfield County based consulting engineering firm specializing in civil, mechanical and electrical engineering. The company has grown from a survey and civil engineering firm in 1955 to a multi-disciplined one serving clients locally, statewide and overseas. In 1997 Austin Brockenbrough & Associates, L.L.P. was recognized as Chesterfield County's *Small Business of the Year* recipient.

The Survey and Transportation Departments are involved in the design of secondary and primary roads for localities including Chesterfield County's Department of Transportation (CDOT) and the Virginia Department of Transportation (VDOT). AB&A has also worked with VDOT on the design of several interstate projects including I-64 at Afton Mountain and at numerous rest area locations along I-81, I-64, I-66, I-77 and I-95.

All areas of surveying are provided including GIS services. Through the use of sub-consultants photogrammetric mapping can also be added to our services. AB&A's road design experience is extensive both locally and across the state. Three projects have recently been completed for CDOT, and one of them has been entered for an *Engineering in Excellence* award offered through the American Council of Engineering Companies (ACEC).

Austin Brockenbrough & Associates, L.L.P. brings to this project:

- ✓ 50 years of diverse design and survey experience in the area of Transportation Engineering.
- ✓ Excellent working relationships with VDOT and Chesterfield County's Department of Transportation (CDOT).
- ✓ Local presence with interest and knowledge of local issues and concerns of citizens.
- ✓ Experience in delivering fast-track projects ahead of or on schedule and within budget.
- ✓ Working relationship and past experience with the Project Team (Clark and SCC).

Timmons Group



TIMMONS is a Virginia-based engineering consulting firm with offices located in the Richmond metro area (Chesterfield, Henrico, Prince George and Hanover Counties, Fredericksburg, VA and Greensboro, NC). TIMMONS has worked within Virginia since 1953 and is familiar with local site conditions and design requirements.

TIMMONS is the largest multi-disciplined engineering and planning firm in central Virginia, offering extensive consulting experience including infrastructure development and planning, land consulting services, landscape architecture, master planning, site engineering, utilities, roads, drainage development, environmental permitting, geotechnical investigations, GIS and survey services, and traffic engineering. Their experience and capabilities provide a unique perspective of the opportunities of Virginia and North Carolina municipalities.

The company has been in business in the metropolitan Richmond area since 1953. The firm employs more than 240 professionals, including, planners, engineers, surveyors, environmental scientists, landscape architects and other support personnel.

TIMMONS' in-house capabilities include all aspects of civil and environmental engineering, land planning, landscape architecture, surveying, GIS consulting and construction management. This self-sufficiency supported by state-of-the-art computer design and drafting, saves time while providing the highest level of professional services.



TIMMONS clients include federal, state and local governments, Fortune 500 companies, some of the nation's largest corporations and some of the area's smallest businesses. TIMMONS strives for quality efficient design and high professional standards. The resulting client satisfaction has meant that repeat business is a norm for the majority of clients.

TIMMONS has ranked in Engineering News Record's list of the nation's top 500 firms for six of the last nine years and ranked tenth in Virginia Business magazine's annual poll of A/E firms. Both magazines based rankings on annual revenues.

Timmons brings to this project:

- ✓ Over 49 years of diverse design and solution experience in Virginia.
- ✓ Excellent working relationships with the Virginia Department of Transportation (VDOT) and Chesterfield County.
- ✓ Extensive Richmond area design experience
- ✓ Experience in delivering fast-track projects ahead or on schedule and within budget.

Parsons Transportation Group

PARSONS Parsons Transportation Group (PTG--formerly De Leuw, Cather & Company) has provided transportation engineering and planning services to public and private clients since 1919. Today, it is one of the world's most experienced transportation engineering firms and maintains a staff of more than 1,400 transportation planners, transportation engineers, traffic engineers, planners, and environmental scientists. More than 150 of the firm's professional staff are located in its Virginia, Maryland, and Washington, D.C., area offices. Specialized capabilities include civil, structural, mechanical, and electrical engineering; transportation systems planning and traffic engineering, urban design and city and regional planning; environmental impact and economic analysis; agency coordination; and community and public participation programs.

The firm has built its reputation for excellence by providing the highest quality of service to all its clients: large and small, rural and urban, public and private. PTG's reputation for well managed, cost-effective projects is generated by a large, highly qualified staff with experience in all phases of highway engineering, from environmental assessment through design, construction, and maintenance management.

Our current highway planning and engineering services have included more than 7,000 miles of interstate highways, toll roads, and expressways, and analyses of needs for over 4,000 intersections and more than 4,000 miles of street segments. We have prepared signal design plans for more than 500 intersection locations, completed more than 200 sub-area and major site studies, and developed more than 40 urban area transportation plans.

Parsons ongoing commitment to environmental stewardship is manifested in our integration of environmental management with planning and engineering skills. We provide a full range of environmental services which include, but are not limited to the following:

- Environmental Documentation Preparation (NEPA, Section 4(f), Section 106)
- Wetland Delineation, Evaluation and Mitigation
- Water Quality Analyses
- Aquatic and Terrestrial Resource Surveys
- Section 7 Biological Assessments
- Traffic Forecasting and Impact Analysis
- Purpose and Need Documentation

- Air, Noise and Energy Assessments
- Historic and Archaeological Resource Surveys
- Socioeconomic, Land Use and Joint Development Studies
- Visual / Aesthetic Assessments
- Hazardous Materials Surveys
- Public and Agency Coordination
- Environmental Permitting Assistance
- Habitat Restoration and Preservation

Parsons has been preparing environmental assessments for major transportation projects since the passage of the National Environmental Policy Act. In the last ten years, Parsons has prepared over 300 Environmental Impact Statements, Findings of No Significant Impact and Categorical Exclusions for our federal and state DOT clients. Projects have ranged from simple intersection improvements to complex bridge replacements to 500-mile rail corridors.

Parsons Transportation Group brings to this project:

- ✓ Over 83 years of diverse design and solution experience.
- ✓ Extensive VDOT Design experience.
- ✓ Experience in delivering fast-track projects ahead or on schedule and within budget.
- ✓ Extensive environmental planning, design and permitting experience.

Lehman Brothers Overview

Lehman Brothers is an investment banking firm that offers a complete array of capital market and investment banking services to institutional, corporate, and governmental clients around the world. Founded in 1850, Lehman Brothers has long been considered one of the most prominent firms on Wall Street. The firm employs over 11,326 people in 45 offices worldwide. Lehman Brothers serves the financial needs of institutional, corporate, and government clients in all major financial centers worldwide. Moreover, we are a member of all principal securities and commodities exchanges in the United States and worldwide. Lehman Brothers acts as a market-maker in all major fixed income and equity products and in certain commodity and derivative products in both the domestic and foreign markets.

Our Municipal Product Division is an integral part of the firm. Consistently ranked as a leader in municipal underwriting for the past ten years, Lehman Brothers is, and will remain, a major player in public finance. Our Municipal Product Division combines investment banking, underwriting, sales and trading, swaps and reinvestment products into one unit for the benefit of our municipal clients.

Lehman Brothers Public Finance Department

Lehman Brothers' Public Finance Department provides investment banking services to a full range of public sector clients, including state and local governments, federal agencies, public/private consortiums, and others requiring financing for public purpose projects. Our 80 public finance bankers are organized into specialty groups located in New York, and regional bankers located in 12 offices throughout the United States. Specialty bankers provide our clients with expertise in specific areas such as transportation, project finance, infrastructure, higher education, healthcare, housing, water and sewer, and public power.

The firm's Municipal Underwriting, Sales & Trading Department, consisting of 93 professionals, is responsible for the capital markets aspects -- underwriting and sales and trading -- of all municipal issues managed by Lehman Brothers. With 47 individuals devoted exclusively to the sale of municipal bonds, Lehman Brothers has one of the largest municipal institutional sales forces in the industry. The most recognized market research study

of investors ranks Lehman Brothers number one in account coverage, depth of coverage, liquidity and trading support and municipal research. Our 17 professional traders dominate the industry by making active secondary markets in more issues than any other firm.

Lehman Brothers Transportation and Project Finance Group

Lehman Brothers' project finance professionals have extensive experience with the contractual, legal, credit, structuring and marketing issues which arise in multi-participant public/private partnership tax-exempt and taxable project financings. The Lehman Brothers' team assembled for this financing has been creating and marketing complex non-recourse project credits beginning with the non-recourse independent power transactions of the mid and late 1980s and across many sectors of the market today. Lehman has particular expertise in assisting its clients in negotiating the primary underlying project documents to support non-recourse project financings (i.e. construction and master lease agreements) with the objective of mitigating construction and lease-up related risks. Lehman Brothers was recognized by Project Finance International magazine as its 1999, 2001 and 2002 "Bond House of the Year."

Lehman Brothers is an industry leader in transportation finance having managed 117 financings totaling over \$16.2 billion since 1996. Lehman Brothers' Transportation bankers have developed a wide variety of financing techniques to assure our clients of the most efficient and low cost access to the tax-exempt markets. With a dedicated Transportation and Project Finance Group based in New York, Lehman Brothers is a leading underwriter of tax-exempt transportation-related bonds. We are distinguished in our ability to introduce large, new and complex issuers to the capital markets and to develop innovative and highly-rated credits on their behalf. Highlights include:

- The first securitized Federal highway grant anticipation note (GARVEE) financing for the Commonwealth of Massachusetts;
- The largest airport privatization project in the U.S. (and the largest municipal bond issue at the time) for the \$1.2 Billion JFK International Air Terminal; Lehman Brothers maintains a 20% equity participation in the JFK project;
- Numerous start-up public/private transportation projects including the E-470 toll road in Colorado and the Southern Connector toll road project in Greenville, South Carolina;
- Underwriter for the Texas Turnpike Authority's \$3.2 Billion Central Texas Turnpike Project, which leveraged the strength of the largest TIFIA commitment to date, a deeply subordinated \$916 million federal loan.

Lehman Brothers brings to this project:

- ✓ Leader in municipal underwriting
- ✓ Industry leader in transportation finance and tax-exempt transportation related bonds
- ✓ Experience in providing low-cost financing to Public-Private Transportation Projects

Clark Ventures



Clark Ventures (CV) and affiliated entities have been involved in the financing of numerous projects in the Washington, DC Metropolitan area and elsewhere including conventional bond and lender financing, tax-free bond financing, and equity financing. CV has a number of professionals available with considerable Wall Street experience. CV will work with the Virginia Department of Transportation, Chesterfield County, impacted jurisdictions and bond underwriters selected by the issuers to expedite the financing and placement of bonds.

D.W. Lyle Corporation

D. W. Lyle Corporation (DWL Corporation) is primarily a bridge and highway contractor based in Richmond Virginia. With a strong reputation for successfully delivering on the toughest projects, DWL Corporation has successfully expanded its operations to diversified markets and job opportunities. DWL Corporation has successfully completed some of the most complex shoring, pile driving, excavation, and concrete construction projects. DWL Corporation has been an active and continuous participant in Virginia and North Carolina heavy-highway construction markets since 1957. A history of constant growth and diversification has been marked by the consistent, safe, timely delivery of quality projects for DOT's, various county and city governments, private entities, and corporate organizations.


Recently, DWL Corporation has enjoyed success in the design/build arena. We believe that design/build fully capitalizes our varied experience and strengths. DWL Corporation was the only Richmond area contractor invited to participate in the 895/Pocohontas Parkway PPTA from its inception. DWL Corporation initially participated in the project providing constructability and plan reviews for the Developer. Construction services were provided at the I-95/895 interchange encompassing bridge, grading, earthwork and storm sewer construction.

DWL Corporation has enjoyed success with VDOT's latest PPTA Design/Build project, the completion of Route 288 in Chesterfield, Powhatan and Goochland Counties. DWL Corporation is performing work on the project as a subcontractor to the Prime Contractor, APAC - Special Projects Division and UCI-VA, the Project Team member responsible for a majority of the bridge construction.

D.W. Lyle Corporation brings to this project:

- ✓ Over 45 years of heavy-highway construction experience.
- ✓ Excellent working relationships with the Virginia Department of Transportation (VDOT) and Chesterfield County.
- ✓ Public-Private Transportation experience on the 895 Pocohontas Parkway and Route 288 Projects.
- ✓ Extensive VDOT and NCDOT construction experience.
- ✓ Excellent project Partnering and teamwork skills.
- ✓ Extensive local team of construction, management, engineering, skilled trades and craftsmen.
- ✓ Excellent relationships with local material suppliers and local subcontractors.

Cofiroute Global Mobility

 Cofiroute Global Mobility provides advanced mobility services and solutions to the transportation industry. Cofiroute Global Mobility's mission is to help its customers achieve toll collection, traffic operations and customer service excellence through its "best in class" operations management and strategic consulting services and innovative software solutions. The company's core areas of expertise include toll collection and violation processing, value pricing, customer service center operations, and customer relationship management. For the Western Extension of the Powhite Parkway, Cofiroute will supply and implement the toll collection systems and integrate them with the existing toll collection systems. Cofiroute will also implement strategies aimed at decreasing toll transaction processing time, thereby increasing the speed at which drivers pass through the toll collection sites.

As one of the world's leading innovators in creating successful toll road operations and systems, Cofiroute Global Mobility has been selected by the Orange County Transportation Authority (OCTA) to operate the 91 Express Lanes, a ten-mile fully automated toll road located in the median of SR-91 in Orange County, California. Cofiroute Global Mobility's 91 Express Lanes team has been recognized around the world for its success and industry leadership in the areas of toll collection, roadway operations, value pricing and customer service. Cofiroute Global Mobility is a subsidiary of Cofiroute (Compagnie Financière et Industrielle des Autoroutes). Through its U.S. affiliate Cofiroute Corporation, Cofiroute is a partner and chief technical advisor to California

Private Transportation Company (CPTC), the franchise owner and operator of the 91 Express Lanes. The facility was the first fully automated toll road in the world and the first application of value pricing in the United States.

Cofiroute's more than 30 years of experience in toll road operations, electronic toll collection and traffic management is unmatched in the international toll industry. Today, more than 1,900 Cofiroute employees efficiently manage and serve more than 255,000 vehicle trips each day worldwide. The company is backed by \$190 million in capital stock and generates annual revenues of more than \$700 million. Over its history, it has raised more than \$3 billion in private financing for international highway development.

Cofiroute Global Mobility brings to this project:

- ✓ World leading innovator in creating successful toll road operations and systems.
- ✓ Proven experience in operating toll collection systems on the SR-91 Express Lanes.
- ✓ Experience in operating technologically sophisticated toll roads worldwide.
- ✓ Over 30 years experience in toll road operations.

Vollmer Associates, LLP

Vollmer Associates LLP is a multidisciplinary engineering firm specializing in transportation projects. Vollmer's staff of civil engineers, structural engineers, surveyors, and architects includes a group of 40 transportation professionals in offices throughout the northeast United States to provide traffic engineering for the firm. Within this group are several individuals who are actively involved with our many toll facility clients.

Our toll facility experience is both broad and diverse. The firm has worked since the 1970s for more than sixty clients in more than twenty states and Puerto Rico and internationally in Canada, Mexico and Central and South America. We have completed literally hundreds of toll facility assignments in every aspect of toll facility planning and operation. Our toll facility experience falls into six general areas:

- Toll Facility Feasibility Studies
- Traffic and Revenue Consulting/Long-Term Assignments
- Latin America Toll Studies
- Electronic Toll Collection (ETC)
- Operational Studies
- Advisory Services

Our traffic and revenue reports have been the basis for the sale of some \$10 billion dollars in revenue bonds. As a result of our experience in traffic and revenue studies, we have become familiar with the staff and requirements of the rating agencies, national and international financial institutions, and major investment banking houses.

Vollmer Associates brings to this project:

- ✓ Proven experience in conducting toll road Traffic and Revenue Studies
- ✓ Excellent reputation with rating agencies and financial institutions
- ✓ Over 40 years engineering and design experience

Principals Involved in Proposed Project

Firm and Key Principal	Education and Experience
 <p><i>Dan T. Montgomery</i> <i>Manager</i></p>	<p>Mr. Montgomery has over 25 years of construction experience with extensive experience in the Mid-Atlantic region including the past 4 years as President and COO of The Clark Construction Group. Mr. Montgomery is responsible for the day-to-day operations of the company and is a recognized leader in the construction industry.</p> <p><i>Education:</i></p> <ul style="list-style-type: none"> • Master of Business Administration, The Colgate Darden Graduate School of Business, University of Virginia, Charlottesville, VA • Bachelor of Science, Civil Engineering, University of Virginia, Charlottesville, VA
 <p><i>Michael E. Post</i> <i>Manager</i></p>	<p>Mr. Post has over 20 years of experience in heavy highway construction projects including the past 8 years as President and CEO of Shirley Contracting Corporation. Mr. Post spent 8 years as an Area manager for Shirley overseeing the construction of multiple public and private projects simultaneously, many of these projects for the Virginia Department of Transportation.</p> <p>Mr. Post was a member of the Route 28 Corridor Improvements team that negotiated the Comprehensive Agreement and Design-Build Contract for the Route 28 PPTA Project.</p> <p><i>Education:</i></p> <ul style="list-style-type: none"> • Bachelor of Science, Accounting, George Mason University, 1985 • Young Managers Institute, 1986 • The Management Institute, Dynamics of Personal Leadership, 1987 • Virginia Polytechnic Institute, Transportation Construction Management, 1988 • Falls Management Institute, Management Productivity for Executives, 1989

Firm and Key Principal

Education and Experience



James A. Hooff Manager

Mr. Hooff has over 25 years of experience in most areas of construction including operations, legal, finance, contract administration and business development and has held various senior positions at The Clark Construction Group, Inc.

Mr. Hooff was a member of the Route 28 Corridor Improvements team that negotiated the Comprehensive Agreement and Design-Build Contract for the Route 28 PPTA Project

Education:

- Master of Business Administration, Finance and Investments, George Washington University, Washington, DC
- Bachelor of Science, Industrial Engineering, West Virginia University, Morgantown, WV



Clark J. Bottner Program Manager

Mr. Bottner has over 20 years of experience in management of major Public and Private projects and programs. In the past 8 years he has been involved in many Design Build ventures dealing with unique challenges that DB involves.

Education:

- Bachelor of Science, Civil engineering, University of Delaware, Newark, Delaware
- Bachelor of Science, Business Finance, University of Delaware, Newark, Delaware

Garry A. Palleschi Proposal Manager

Mr. Palleschi has over 15 years of experience in the construction industry and is responsible for the company's business development and design/build programs. He was responsible for developing the successful PPTA Route 28 Corridor Improvements project, from building the team and developing the concept to assisting in the negotiation of the Comprehensive Agreement and Design/Build Contract with VDOT.

Education:

- Master of Business Administration Marymount University, Arlington, Va.
- Bachelor of Science, Decision Science George Mason University, Fairfax, Va.
- Associate in Applied Science, Building Construction, State University of N.Y



Firm and Key Principal



Dale Rosenthal
Clark Ventures

Education and Experience

In addition to her duties as Senior Vice President and Chief Financial Officer of The Clark Construction Group, Ms. Rosenthal has overall executive responsibility for the day-to-day operations of Clark Ventures. Ms. Rosenthal brings 17 years of real estate development experience to the team.

Education:

- Master of Business Administration, Harvard University
- Juris Doctor, Harvard University
- Bachelor of Arts, Economics, Cornell University



C. Neal Fleming, Jr.
President

Mr. Fleming is the President of Clark Residential which focuses on the development and program management of large scale projects throughout the United States. Mr. Fleming has over 22 years of development and construction experience in the Washington, DC Metropolitan area. Mr. Fleming is currently serving as the Development Manager for the Clark/Shirley team on the Route 28 PPTA project in Northern Virginia.

Education:

- Master of Science in Real Estate, American University
- Undergraduate Degree, Tulane University, 1970



Christopher A. Bucher
Vice President and
Construction Manager

As Vice President and Construction Manager, Mr. Bucher is responsible for the overall management of public and private contracts, specifically for projects with the Virginia Department of Transportation. Mr. Bucher has over 20 years of construction experience, beginning as a Design Engineer for Dewberry and Davis and Black & Veatch, before joining The Clark Construction Group, Inc. in 1982 as a Project Manager initially overseeing tenant build outs for multiple building projects. Mr. Bucher was then promoted to Project Manager and eventually to Senior Project Manager, supervising the construction of numerous building and water treatment projects in the metropolitan Washington, D.C. area. In 1994, Mr. Bucher joined Shirley Contracting Corporation as Vice President and Contract Manager, where he oversees the Contract and



Firm and Key Principal



Thomas H. White
Senior Project Manager

Education and Experience

Subcontracts section as well as the overall management of all contracts with the Virginia Department of Transportation.

Education:

- Bachelor of Science, Civil Engineering, Virginia Polytechnic Institute, 1980

Mr. White brings over 17 years of construction experience to Shirley Contracting Corporation, most recently as a Senior Project Manager. Mr. White began his career as a Project Engineer before being promoted to Assistant Superintendent and the Project Manager supervising the construction of Metro subway stations and wastewater treatment plants. Mr. White joined Clark Construction in 1986 as a Project Manager overseeing building construction projects and more notably, the Orioles facility in Camden Yards. In 1993 Mr. White joined Shirley Contracting Corporation as a Project Manager/Contracts Manager overseeing the construction on multiple projects, including the I-95 HOV II which included over 16 new bridges and new HOV lanes in I-95.

Education:

- Bachelor of Science, Civil Engineering, Virginia Polytechnic Institute, 1978

Registration:

- Professional Engineer in Virginia, Maryland and the District of Columbia

Mr. Smith brings over 14 years of progressively responsible construction experience to the team. Beginning as a Project Manager for the WSSC where he managed design contracts for rehabilitation projects for the Owner, to Project Engineer and Project Manager for Clark Construction Group where he supervised the construction on numerous buildings in the local area. Mr. Smith joined Shirley Contracting Corporation in 1993 as a Project Manager where he supervised many Virginia Department of Transportation projects including the Route 123/ Davis Ford Road widening, the Fairfax County Parkway at Frontier Drive, The widening of I-495 @ Route 7, the Fairfax County Parkway at Route 617 and the Chippenham Parkway widening in Richmond Virginia. Mr. Smith's duties with Shirley Contracting Corporation are to manage major projects, which would include the Route. 28 Corridor Improvements Project.



Charles L. Smith IV
Construction Manager

Firm and Key Principal

Education and Experience



Robert T. Gallagher, PE
*Vice President
Global Facilities and
Infrastructure*

Education:

- Bachelor of Science, Civil Engineering, University of Maryland, 1986

Registration:

Engineer in Training

Mr. Gallagher has extensive experience in Virginia transportation projects. He is the transportation manager responsible for profit and loss operations for home and field offices for all four major transportation disciplines of roadway and bridge design, construction inspection and right-of-way acquisition services in the state of Virginia. He is thoroughly familiar with the complete process of transportation projects including public involvement policy and environmental document preparation, along with roadway, hydraulics and bridge design. He has been instrumental in the successful design and administration of many VDOT and municipal VDOT-funded highway projects.

Education:

- Bachelor of Science, Civil Engineering, Tri-State University, Angola, Indiana, 1987
- Associate of Applied Science, Construction Technology, State University of New York, Alfred

Registration:

- Professional Engineer, Virginia, 23016, 1992

Key Qualifications

- Numerous diversified VDOT experience
- Proven performance in Principal role on several VDOT contracts
- Committed focus on results with hands on involvement as required



Claude W. Seal, Jr.
*Transportation Program
Manager*

Mr. Seal has extensive experience in the management and development of urban, primary and complex Interstate projects and toll facilities throughout the Commonwealth of Virginia. He is the former consultant coordination services manager for VDOT's state location and design division, responsible for the planning, scheduling, public participation, consultant liaison, right of way and construction plans and estimates on as many as 75 concurrent consultant prepared projects (\$90 million in fees).

Firm and Key Principal

Education and Experience



**Arthelius A. "Trip" Phaup
III, PE
Structure and Bridge
Program Manager**

Key Qualifications

- 50 years experience including 39 Years with VDOT
- Former VDOT Consultant Services Coordinator

Mr. Phaup serves as Earth Tech's leader of the bridge and structures department in the Richmond office. He has 15 years of progressive experience in the analysis, design, and preparation of preliminary and final plans, special provisions, and construction cost estimates for a variety of highway and railway structures. These projects have covered a range of engineering complexity and site characteristics, including new structures, replacement structures, staged construction requirements, and temporary highway and railway structures. In addition, Mr. Phaup has provided inspection, office engineering, and consultation services during the construction of highway and railway structures. Also, Mr. Phaup has designed temporary structures for contractors, including formwork for concrete slab bridges and sheeting, shoring, and cofferdam structures facilitating foundation and substructure construction.

Education:

- MBA/2002/Virginia Commonwealth University
- MS, Civil Engineering (emphasis in Structures), Virginia Polytechnic Institute and State University, 1988
- BS, Civil Engineering, Virginia Polytechnic Institute and State University, 1987

Registration:

- Professional Engineer, South Carolina, 16826, 1995
- Professional Engineer, North Carolina, 19584, 1994
- Professional Engineer, Virginia, 23335, 1992

Key Qualifications

- 13 years of experience in Virginia
- Experienced in all types of highway and railway bridge design
- Experienced with curved girder design and complex projects

Firm and Key Principal



J. Russell Rivenbark, PE
Geotechnical Project
Manager/ Construction
Inspection

Education and Experience

Mr. Rivenbark has 22 years of geotechnical engineering experience and has conducted hundreds of geotechnical projects throughout the mid-Atlantic region during his career. Project types have ranged from roadways, bridges, and runways to shopping centers, multi-story structures, tanks, towers, and retaining walls. Mr. Rivenbark has provided his geotechnical expertise on several VDOT projects that included roadway and pavement design, bridge and culvert foundations, preconstruction administration, and construction inspection. In addition to his geotechnical engineering experience, he has managed numerous construction inspection projects, including multiple-project contracts for VDOT in the Bristol and Salem Districts. Mr. Rivenbark is also certified by the Virginia Department of Conservation and Recreation as a Combined Administrator in their Erosion and Sediment Control Program, which includes inspection; plan review, and administration oversight capabilities.

Education:

- BS/1979/Civil Engineering

Registration:

- 2000/Professional Engineer
- 1983/Professional Engineer
- 1989/Professional Engineer

Key Qualifications

- 21 years of experience
- Conducted hundreds of geotechnical investigations & analyses
- Projects include roadways, bridges, runways, retaining walls, and various foundations type



Gerald W. Augst, P.E.

Mr. Augst has been with AB&A for over 30 years. Since 1972 he has served as Design Engineer, Project Manager, Associate and Partner-In-Charge for numerous projects and clients, both public and private. Currently his responsibilities include technical direction, management and general oversight of personnel and contracts for Transportation, Civil and Environmental projects. Throughout his career Mr. Augst has been involved in large projects requiring the design and coordination of multi-discipline engineering costs from several million dollars to over \$50,000,000.



Firm and Key Principal

Education and Experience

Education:

- Bachelor of Science, Civil Engineering, Virginia Polytechnic Institute and State University 1970
- Chesterfield County Total Quality Improvement Program, Graduate 2002

Registration

- Professional Engineer, Virginia, 7684
- Professional Engineer, West Virginia 12218

Key Qualifications

- Numerous diversified VDOT experience
- Committed focus on results with hands on involvement as required



Carolyn B. Langelotti, PE Partner

Ms. Langelotti is a Partner of Austin Brockenbrough & Associates. She is responsible for overall project controls and quality control. She has also served as a design engineer for highway, site development, utility and minor structural design projects and is experienced in scoping, conceptual and final design, preparation of contract documents, specifications, cost estimating and studies.

Prior to joining Austin Brockenbrough & Associates, Ms. Langelotti was a Senior Project Engineer with Parsons/Main in Charlotte, NC. She provided project management, scoping, technical writing, civil and structural design engineering for municipal and industrial clients.

Education

- Bachelor of Science, Civil Engineering, University of North Carolina Charlotte 1986
- Masters in Business Administration, University of North Carolina Charlotte, 1993
- Chesterfield County Total Quality Improvement Program 2002

Registration:

- Professional Engineer, Virginia, 25010
- Professional Engineer, North Carolina 16816

Key Qualifications

Diversified VDOT experience



Sherman W. Litton Transportation Project Manager

Mr. Litton currently serves as a Transportation Project Manager and *Design* Engineer at AB & A. He is responsible for planning, design, specifications and quality control on numerous roadway design projects. Prior to joining AB & A, Mr. Litton worked as a Senior Engineer at the Virginia Department of Transportation. He



Firm and Key Principal



Paul R. Trapp, PE
Department Manager,
Transportation



Timothy M. Davey, PE
Vice President & Director
of Urban & Economic
Development

Education and Experience

was responsible for design of various types of roadway projects including interstate, rural and urban. He was also the VDOT representative on the American Association of State Highway and Transportation Officials (AASHTO) for the development of various software design systems including coordinating the design of the software for 12 to 15 states.

Education

- Extensive coursework in Engineering, and Computer Science. Virginia Commonwealth University
- Chesterfield County Total Quality Improvement Program 2002

Currently the manager of the Transportation Department at Timmons. His experience includes all aspects of transportation planning and traffic engineering including roadway design, alignment studies and traffic impact analysis. He has been the project manager on over 20 projects for the Virginia Department of Transportation as well as other municipal and private clients.

Education

- Bachelor of Science, Civil Engineering, Rensselaer Polytechnic Institute, 1983
- Master in Civil Engineering, State University of New York, 1987
- Chesterfield County Total Quality Improvement Program 2001

Registration:

- Professional Engineer, New York

Mr. Davey manages the environmental Engineering Department that is responsible for environment permitting and approvals for a wide range of design and construction projects. He supervises all wetland delineations, permits and mitigation design plans, coordinates approval of municipal stormwater management plans, erosion control master plans, individual Chesapeake Bay Act compliance designs and NPDES permits.

Education

- Bachelor of Science, Civil Engineering, Michigan Technological University, 1985



Chris M. Keifer, PE
*Assistant Department
 Manager - Transportation*

Registration:

- Professional Engineer, Virginia, North Carolina

Mr. Keifer has over 13 years of experience with transportation planning, including Roadway and Drainage designs and Utility Field Inspections. Mr. Keifer has extensive experience designing roadway improvements, access roads and extensions for renovations and new construction.

Mr. Keifer has managed numerous projects involving construction of new (two and four lane) roadways, major intersection improvements, urban street and rural road, widening of Secondary and Primary roadways, rural addition projects, revenue sharing projects, industrial and recreational access projects, corridor studies, bridge replacement projects and master planning projects.

Education

- Bachelor of Science, Civil Engineering, University of Notre Dame, 1988

Registration:

- Professional Engineer, Virginia

Mr. Younkins is experienced in all aspects of roadway design for both public and private clients. He has thorough knowledge of design principals for both urban and rural roadways including horizontal/vertical alignment, hydrological analysis, storm sewer and stormwater management design, grading and drainage of roadway improvements, coordination of utility conflicts, maintenance of traffic plans, right-of-way computations, and quantity estimates and summaries. Mr. Younkins has also prepared presentation documents and participated in Citizen Information Meetings and Public Hearings as required by VDOT on roadway projects.

Education

- Bachelor of Science, Civil Engineering, Virginia Polytechnic Institute, 1986

Registration:

- Professional Engineer, Virginia



Randall L. Younkins, PE
*Senior Transportation
 Manager*



J. Stuart Tyler, PE

Mr. Tyler's experience over 23 years includes corridor studies and associated environmental analyses and documents. This work requires knowledge and application of the NEPA process, design criteria and standards, as well as VDOT administrative procedures. Coordination with federal, state and local agencies is also an important aspect of this work. His experience also includes wetlands delineation and noise and air quality studies.

Education

- Master of Science, Civil Engineering, University of Virginia, 1986
- Bachelor of Arts, Environmental Science, University of Virginia, 1976

Registration:

- Professional Engineer, Virginia, North Carolina
- American Institute of Certified Planners (AICP)



Warren P. Gray, PWS, CF

Environmental Planner/Ecologist with more than 13 years of experience in transportation/environmental planning, NEPA document preparation, ecological impact assessment, threatened and endangered species assessment, wetland delineation, wetland functional evaluation, wetland mitigation planning/design/monitoring, natural resource assessment, Section 7 Biological Assessments, regulatory permitting and community planning. Provided technical and management support of major public works projects throughout the planning and permits process in Virginia, Maryland, the District of Columbia, New York, New Jersey, Connecticut, California and Pennsylvania. Successfully guided projects through Federal and state regulatory process, which included coordination of multidisciplinary teams in the preparation of environmental impact statements and associated local/Federal regulatory review documentation.

Education

- Bachelor of Science, Forest Biology University of Vermont, 1988
- Graduate Studies, Duke University School of the Environment 1990-1992

Registration:

- Certified Forester, Society of American Foresters, 1997
- Professional Wetland Scientist, Society of Wetland Scientists, 1995

Firm and Key Principal

Education and Experience

D.W. Lyle Corporation

Joseph W. Lyle President

As President, Mr. Lyle has operational control and directs the company's daily operations. Mr. Lyle joined the company in 1965 starting as Foreman and worked his way to his current position as President. He has successfully guided the company from a small business enterprise, to its current position as one of Virginia's Top 20 Contractors. Mr. Lyle has been active in representing the construction industry in Virginia, holding numerous positions in the Virginia Road and Transportation Builders Association, including President in 1991.

Education

- Associate Degree, Business Administration, National Business College

D.W. Lyle Corporation



David W. Lyle Executive Vice President

Mr. Lyle is Executive Vice President of D.W. Lyle Corporation, having worked for the company since 1990. Mr. Lyle is responsible for the day-to-day management of the construction operations of the company. Upon graduation from college, Mr. Lyle began his construction career in the Goldsboro, North Carolina area. After 2 years, Mr. Lyle returned to the D.W. Lyle Corporation where he has been responsible for over 40 construction contracts, completing over 60 structures. In addition to his field oversight responsibilities, Mr. Lyle has been responsible for updating the company's estimating, scheduling and cost accounting systems, resulting in efficient, productive and cost effective operations.

Education

- Bachelor of Science, Building Construction, Virginia Tech

FIRM CONTACT LIST

Firm Name		Firm Contact
	The Clark Construction Group, Inc. 7500 Old Georgetown Road Bethesda, Maryland	James A. Hooff Senior Vice President Phone: 301/272-8100 Fax: 301/272- 1916
	Shirley Contracting Company, LLC 8435 Backlick Road Lorton, Virginia 22079	Michael Post President & CEO Phone: 703/550-8100 Fax: 703/550-7899

1d. Describe the length of time in business, business experience, public sector experience, and other engagements of the firm(s).

Team's Business and Public Sector Experience

The Clark Construction Group, Inc.'s main goal is client satisfaction. We achieve this through management excellence, which has been the primary objective of Clark since the company was founded in 1906. The company's constant focus on this objective has enabled Clark to become one of the nation's most competitive providers of quality development and construction services. Today, Clark offers one of the most diverse portfolios of services available in the industry and an annual volume of approximately \$2 billion.



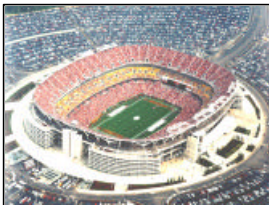
Project Title/Location: Woodrow Wilson Bridge Foundation Contract
Client: Maryland State Highway Administration
Services Provided: General Contractor

Clark is serving as general contractor/joint venture partner for this \$126 million bridge foundation project for the new Woodrow Wilson Bridge being constructed over the Potomac River in the Washington, D.C. area. The project includes steel pipe piling from 48" to 72" diameter, 24" diameter prestressed concrete piling, and poured in place concrete pile caps for the new bridge foundations. The project also included bulkhead improvements to facilitate delivery of materials from the water.



Project Title/Location: San Diego State University Subway and Tunnel
Client: San Diego Metropolitan Transit Authority
Services Provided: General Contractor

Clark is serving as the general contractor for this 5.9 mile, \$431 million Mission Valley East Extension that will loop under the San Diego State University Campus. The 4,000-foot tunnel and underground light rail station will ultimately connect to a future redevelopment project. Clark is excavating over 200,000 c.y. of material on the project. The project will utilize the New Austrian Tunneling Method to complete the tunnel work. The station work will require 200,000 s.f. of traditional sheeting and shoring to support the excavation process.



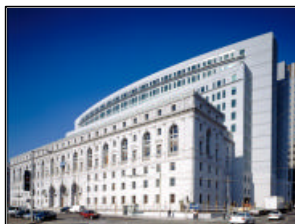
Project Title/Location: FedEx Field (Redskins Stadium), Landover, Maryland
Client: John Kent Cooke
c/o Walter E. Lynch & Co.
Services Provided: General Contractor

Clark served as general contractor for this \$179.5 million state-of-the-art NFL stadium. Construction of the stadium, parking lots and off-site roads required moving 1,700,000 cubic yards of earthwork, including a significant amount of unsuitable material located in the stadium bowl. Up to sixty feet of cut was required within the limits of the stadium footprint.



Project Title/Location: MCI Center, Washington, DC
Client: DC Arena Limited Partnership
Services Provided: Managing Partner

Clark served as the managing partner for this \$144 million, design/build, 1,000,000 SF, 23,000-seat arena. This state-of-the-art arena incorporates several complex electrical and mechanical systems. The lighting consists of an elaborate, computer controlled system. The arena is also wired to make use of video technology throughout the concourses and in the club seating area. One of the most significant challenges to the project's schedule was the location of construction directly over and adjacent to Metro Rail lines which remained in operation during construction.



Project Title/Location: San Francisco Civic Center Complex, San Francisco, California
Client: California Department of General Services
Services Provided: Design/Build Team Leader

Clark served as the design/build team leader for this \$246 million project which included the complete renovation to the historic 200,000 SF California State Building, and construction of a new 850,000 SF adjoining facility. On this project, Clark worked effectively with the owner to control project costs, minimizing additional costs when encountering numerous unforeseen conditions. This project demonstrates how, utilizing a team approach, Clark has worked effectively with a public agency to deliver a large, complex project on time and within budget.



Project Title/Location: Bath Iron Works Land Level Transfer Facility
Bath, Maine
Client: Bath Iron Works
Services Provided: General Contractor

Clark served as general contractor for this \$218 million expansion at the Bath Iron Works (BIW) in Bath, Maine. The expansion will ensure BIW's position as a leader in the shipbuilding industry into the 21st century with the latest technology in shipbuilding techniques. At the heart of the Land Level Transfer Facility is a 235,000 square-foot structural deck, which includes three Shipbuilding stations, a four-story manufacturing support facility, and associated cranes. Attached to the south end of the deck is a dry dock that moves laterally via a system of chains and pulleys on the river bottom that enables the dry dock to move between each of the three shipbuilding stations. Ships travel over rails from stations into the dry dock for launching.

Shirley Contracting Company, LLC has been involved in the construction of heavy and highway projects for the Virginia Department of Transportation for the past 25 years. As one of VDOT's premier constructors, Shirley has been the prime contractor for widening and extensions of the HOV lanes on Interstate 95 as well as numerous other high profile projects in and around Northern Virginia. Currently, Shirley Contracting Company is beginning the reconstruction of the "Mixing Bowl" where Interstates 95/395/495 converge. Shirley was the successful bidder on Phases II, III and IV of this project and has completed Phases II/III of the project ahead of schedule, earning the company a \$10 million dollar early completion bonus. The Mixing Bowl will entail over \$600 million of construction before the project is completed.



Project Title/Location: **I-95/495/395 Reconstruction, Phases II/III/IV**
Client: Virginia Department of Transportation
Services Provided: Prime Contractor

Shirley Contracting Company is the prime contractor on two phases of the Springfield Interchange project in the heart of Northern Virginia and one of the Commonwealth's busiest sections of Interstate. The projects encompass the construction of 20 new bridges, over 60 MSE retaining walls, sound barrier walls, excavation and grading, significant changes to the existing traffic management systems and re-paving of large portions of the roadway.



Project Title/Location: **Route 28 Corridor Improvements-Public Private Transportation Act Project**
Client: Virginia Department of Transportation
Services Provided: Developer/Construction Manager

Shirley Contracting Company and The Clark Construction Group are co-managers and developers of Northern Virginia's first PPTA project, the Route 28 Corridor Improvements. The project entails design-building 6 grade separated interchanges to replace existing at-grade intersection on heavily traveled Route 28. The \$200 million project was started in September 2002. In addition to design and construction, the team is responsible for acquiring all required right-of-way for the project and all utility relocations necessary for construction. The project is slated to be completed in early 2007.



Project Title/Location: **Rehabilitation of Turkey Run & Dead Run Bridges George Washington Memorial Parkway**
Client: Federal Highway Administration
Services Provided: Prime Contractor

Shirley Contracting Company is the prime contractor on this challenging bridge rehabilitation project. The project was comprised of the demolition and reconstruction of 3 bridges and deck modifications to a 4th bridge. All bridgework was restricted to weekends and weekend nights with substantial liquidated damages if the entire roadway was not available to the traveling public each Monday of the project.



Project Title/Location: **Chippenham Parkway**
Client: Virginia Department of Transportation
Services Provided: Prime Contractor

Shirley Contracting Company, as prime contractor, completed over 4.5 miles of widening to Chippenham Parkway (Route 150) in the high growth corridor west of Richmond, Virginia. In addition to adding a third lane in each direction, 10 bridges were widened, in excess of 100,000 SF of sound barriers were constructed and the entire length of the project received a new riding surface. The project was performed on one of Richmond's most traffic congested roadways and was completed significantly ahead of the specified contract completion date, earning an early completion bonus.



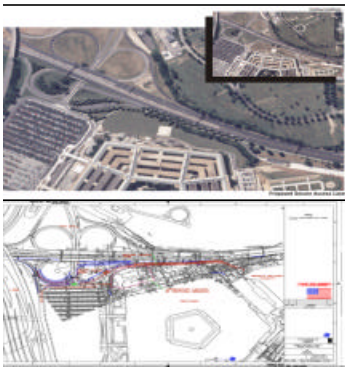
Project Title/Location: **Route 7/15 Interchange**
Client: Virginia Department of Transportation
Services Provided: Prime Contractor

As the prime contractor for this project, Shirley Contracting Company constructed new roadways, rehabilitated 2 bridges and constructed a new flyover bridge at this busy interchange just outside of Leesburg, Virginia. This new bridge dominates the skyline in this region and is a signature of the growth and change in this once rural area.



Project Title/Location: **Fairfax County Parkway Multiple Sections (@ Route 617 & @ Route 7)**
Client: Virginia Department of Transportation
Services Provided: Prime Contractor

As the prime contractor, Shirley Contracting Company has completed two sections of the Fairfax County Parkway which involved over \$ 25 million dollars in contract work. Both projects entailed the construction of a new 4 lane divided highway with construction of multiple new bridges, MSE retaining walls, and sound barrier walls. Both projects were completed on a fast track basis in which the roadways were delivered to the State well in advance of the project completion date and allowed for the traveling public to benefit from the roadways on an accelerated schedule.



Project Title/Location: **PenRen Secure Access Lane**
Client: Pentagon Renovation Group
Services Provided: Provide a secure access lane (SAL) to the Pentagon's Remote Delivery Facility.

Federal officials identify the project as the top priority rated security project in the United States. The \$10 million project involves modification of the Route 27/244 Interchange to create a secure/dedicated access lane and incorporate blast protection. The SAL was created to increase truck queuing capacity, while inhibiting unauthorized or accidental public access. The Pentagon's close proximity to Interstate 395, Route 27, and Route 110 created the need for an alternative design that would not only increase security, but also increase or maintain the level of service for the thousands of commuters that use these routes daily and grant easy and secure access for deliveries to the Pentagon. Earth Tech was a member of the Shirley Contracting Company team on this fast track design-build project.

Earth Tech has had the opportunity to provide, planning, design engineering, construction management and related services to the Virginia Department of Transportation for over 25 years. During this period we have established a reputation for being result oriented and having the ability to carry out extremely challenging projects and aggressive schedules. With in the last five years our Virginia Offices have turned in construction plans for projects with a combined construction cost in excess of \$480 Million dollars. We have successfully completed this work on time and on budget to VDOT's satisfaction. A resource pool of over 1200 professionals in our Earth Tech Transportation Division augments our Virginia staff. Our Transportation Division staff includes traffic/transportation, civil, structural, geotechnical, and hydraulic engineers; planners, who assist in various analyses and assessments. We have a staff of 250 from our Richmond and Alexandria offices.

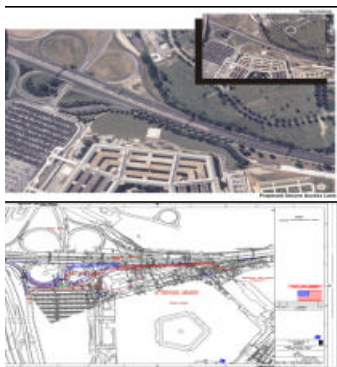
Our Richmond Office brings to the team a resource pool of over 1000 years of VDOT design experience. This staff consists of professionals who provide roadway and bridge design, construction engineering and inspection, right of acquisition and environmental services and permitting. We possess a thorough understanding of VDOT and Chesterfield County policy, procedures and personnel. We currently provide VDOT On-Call Roadway Design Services to the Richmond, Salem and Bristol Districts and have provided consecutive Chesterfield County On-Call Design services since 1996



Project Title/Location: Route 288 PPTA
Client: Virginia Department of Transportation
Services Provided: Design, Environmental Studies, Permits

Earth Tech was selected to obtain permits, complete environmental studies, and design this high-profile multi-phased segment of the US Route 288 western bypass around Richmond, Virginia. This four-lane divided facility bisects a , 300-acre commercial development and required extensive coordination with the planned \$3 billion Motorola manufacturing facility and the 5,000 employee campus head quarters for Capitol One.

The segment includes five interchanges and involved extensive permitting, an interstate interchange justification study, updating of the regional traffic model and environmental documents. As part of the work, Earth Tech fostered close interagency coordination with the US Army Corps of Engineers, EPA, and US Fish and Wildlife Service to expedite agency approval for wetland impacts of four acres. The initial phase involved design of the ultimate section while accommodating a partial two-lane construction section from US Route 250 south to West Creek Parkway on an extremely fast-tracked schedule.



Project Title/Location: PenRen Secure Access Lane
Client: Pentagon Renovation Group
Services Provided: Provide a secure access lane (SAL) to the Pentagon's Remote Delivery Facility.

Federal officials identify the project as the top priority rated security project in the United States. The \$10 million project involves modification of the Route 27/244 Interchange to create a secure/dedicated access lane and incorporate blast protection. The SAL was created to increase truck queuing capacity, while inhibiting unauthorized or accidental public access. The Pentagon's close proximity to Interstate 395, Route 27, and Route 110 created the need for an alternative design that would not only increase security, but also increase or maintain the level of service for the thousands of commuters that use these routes daily and grant easy and secure access for deliveries to the Pentagon. Earth Tech was a member of the Shirley Contracting Company team on this fast track design-build project.



Project Title/Location: **I-95/Walthall Interchange**
Client: Virginia Department of Transportation & Chesterfield County

Services Provided: Earth Tech developed complete right of way and construction plans and conducted the environmental assessment (EA/FONSI) for the Walthall interchange roadway improvements in eastern Chesterfield County. The project entailed upgrading the existing modified diamond-type interchange and two miles of secondary roads (most on new alignment) to accommodate current and planned industrial and commercial growth in the immediate area. Earth Tech initially developed 12 alternatives, which were then reduced to three feasible alternatives through initial evaluation of engineering, cost, and environmental issues.



Project Title/Location: **I-81/Route 460 Interchange**
Client: Virginia Department of Transportation

Services Provided: Traffic analysis, roadway design, interchange study/request, hydraulic design, retaining wall design, special median barrier design, public involvement and high-end rendering presentation materials. **Justification**

Earth Tech provided professional engineering services for complete right of away and construction plans for extension of the Route 460 bypass at Christiansburg southward to a new interchange with I-81. Three interchanges were included.

The new full cloverleaf interchange with I-81 required Earth Tech to provide an interchange justification study/request for FHWA approval and upgrade 3.4 miles of I-81 to a six- and eight-lane facility with collector-distributor lanes for the length of the project.

To reduce impacts to existing businesses and an apartment complex, an urban interchange with braided ramps at Route 11 was required. The addition of collector-distributor lanes along I-81 required redesign of the existing interchange with Routes 11 and 460.

Due to numerous traffic movements and the close proximity of the interchanges, an extensive traffic analysis was conducted to determine lane requirements. Impacts to existing residences along I-81 required special design median barriers, retaining walls, noise abatement walls, and the inclusion of other special design items in the project.

Austin Brockenbrough & Associates, L.L.P. has been designing highway transportation projects for the Virginia Department of Transportation for almost 50 years. AB&A's portfolio of roadway designs includes an impressive array of secondary, primary and interstate highways throughout the state of Virginia and locally in Chesterfield County. Currently, AB&A is one of the engineering firms selected to provide design services to the County for transportation projects.



Project Title/Location: **Route 604, Genito Road, Chesterfield County**
Client: Chesterfield County Department of Transportation
Services Provided: Roadway Design Services including utility adjustments and bridge design

Genito Road is a heavily traveled, secondary roadway. The length of the project extends approximately 4.8 kilometers (3 miles) from Route 360 to Fox Chase Lane in the Brandermill Subdivision. Improvements include reconstruction from two-lanes to four with turning lanes, curb and gutter, and raised median. AB&A provided complete design services from concept development through final design and advertisement. Construction phase services are also provided.

The Genito Road plans call for the construction of a new bridge over Route 288, and design services include cost estimating, traffic analysis, landscaping design and utility location and designation. The first phase of the project (C501) has been completed and the second phase (C504) is scheduled to be completed by December, 2003.



Project Title/Location: Route 150, Chippenham Parkway, Chesterfield County
Client: Virginia Department of Transportation
Services Provided: Roadway Design Services

Constructed in the mid-1960's, Chippenham Parkway was originally designed for a traffic volume of 8,400 vehicles per day (vpd). Year 2020 traffic projections estimate the volumes to increase to 102,000 vpd. Improvements were necessary to relieve traffic congestion and improve safety.

VDOT contracted **AB&A** to assist them with the completion of the construction plans. Under a tight schedule our transportation group completed the maintenance of traffic plans, typical sections, details and pay item summaries. As part of the effort we assembled and performed the Quality Check for over 270 sheets of plans, profiles and cross sections.

One of the biggest challenges was in preparation of the maintenance of traffic plans. AB & A prepared detailed plans for the placement of temporary traffic barriers, impact attenuators, lane shifts and tapers for each phase of construction.

Shirley Contracting Company (SCC) was the general contractor for the Chippenham improvements and AB&A worked closely with SCC during the construction phase of the project.



Project Title/Location: Route 58, Big Stone Gap Bypass, Big Stone Gap, Virginia
Client: Virginia Department of Transportation
Services Provided: Survey and Roadway Design Services

AB&A is the prime consultant for the design of a 5.2 kilometer (3.23 mile), 4-lane limited access highway in Wise County, Virginia. AB & A is providing complete design development from concept through final design, including survey, geotechnical engineering, traffic analysis and drainage design through a difficult mountainous terrain. Located on the south side of Big Stone Gap the new highway will run parallel to the Powell River on the side of a mountain.

Currently under design, a variety of techniques are being investigated to provide the most stable, cost effective design while maintaining the natural beauty of the area. Estimated cost of construction is \$50,000,000.

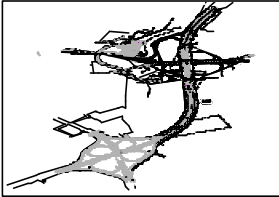
Timmons Group is the largest multi-disciplined engineering and planning firm in central Virginia, offering extensive consulting experience including infrastructure development and planning, land consulting services, landscape architecture, master planning, site engineering, utilities, roads, drainage development, environmental permitting, geotechnical investigations, GIS and survey services, and traffic engineering. Their experience and capabilities provide a unique perspective of the opportunities of Virginia and North Carolina municipalities.



Project Title/Location: U.S. Route 17 Improvements, City of Chesapeake, Virginia
Client: Virginia Department of Transportation
Services Provided: Aerial photogrammetric mapping, Intersection layout and design, stormwater drainage design.

Timmons was the lead consultant for the design of this 18.7 kilometer (11.6 mile), 4-lane divided highway on a new alignment in Chesapeake, Virginia. Timmons provided complete design development including aerial photogrammetric mapping, field survey and cross-sections, horizontal and vertical alignments, intersection layout and design, stormwater design, public hearings and citizen information meetings and maintenance of traffic plans. U.S. Route 17 serves a regional safety function by providing an alternate hurricane emergency evacuation route from the Outer Banks.

A new roadway alignment was selected for this project in lieu of widening the existing roadway due to the close proximity of the Great Dismal Swamp. Potential impacts to the swamp were avoided by selecting a new alignment for the widened roadway.



Project Title/Location: I-295/Meadowville Road Interchange
Chesterfield, Virginia
Client: Chesterfield County Department of Transportation
Services Provided: Development of construction plans for a new full cloverleaf interchange on I-295

The design for this project was prepared for Chesterfield County Transportation Department as part of an economic development package for a potential major commercial/industrial project. Survey and design plans were completed within 7 months of notice to proceed, and the Commonwealth Transportation Board (CTB) approved the design within 9 months of notice to proceed.

The interchange's unique configuration is based on anticipated heavy traffic (weaving) maneuvers on I-295 generated by the planned Meadowville Technology Park and Riversbend developments on the east and west sides of I-295

Despite the proximity of significant wetlands associated with the Johnsons Creek watershed, total wetland impacts were reduced to less than 2 acres and the project qualified for a categorical exclusion from the Federal Highway Administration.



Project Title/Location: North Woolridge Road Extension Chesterfield
County, Virginia
Client: Chesterfield County Department of Transportation
Services Provided: Development of construction plans for 1.25 miles of a new 4-lane divided urban arterial.

This project was funded through a partnership between VDOT, Chesterfield County and a local developer. The developer secured all necessary right-of-way for the project. Chesterfield County administered the design and construction of the project. The proposed roadway alignment was located through an area that was the center of Chesterfield's coal mining operations in the late 1800's.

Significant cultural resource surveys were conducted to delineate and document the historic mining district and help avoid damaging any areas having potential historic significance.

The proposed design included the construction of a pedestrian tunnel under Woolridge Road to enhance safe access between existing and planned residential developments, a proposed public park and the Village of Midlothian.

D.W. Lyle Corporation has been constructing road and bridge projects in the Richmond Metropolitan area since its inception in 1957. The company has built its reputation on the concept that successful projects are delivered through the use of teamwork, including an absolute commitment to safety, and providing a high quality project ultimately resulting in a timely project delivery. D.W. Lyle Corporation believes that the design-build method of project delivery provides numerous benefits to the owners of a project and the company is about to finish its second large scale design build project in the Richmond area, with the projected Spring 2003 completion of Route 288.



Project Title/Location: I-895/Pocahontas Parkway and Virginia Route 288
Client: Virginia Department of Transportation
Services Provided: Bridge Subcontractor

On each of these projects being constructed under Virginia's Public Private Transportation Act, D.W. Lyle Corporation participated in the development of the design and construction of numerous bridges on the project. Lyle was involved in the original pre-project estimating and pricing of the bridge structures, providing constructability reviews for structures and roadways, and actual construction of bridges. In addition to the structure work on the projects, Lyle was involved in constructing storm sewers, excavation and grading.

Vollmer Associates is known as one of the worlds most experienced firms in determining the feasibility of new toll roads. The firm's traffic and revenue studies have been the basis for some 19 billion dollars of toll revenue bonds for the construction of toll roads throughout the world. The company has completed hundreds of projects in the toll facility area in every aspect of toll facility planning and operation.



Project Title/Location: E-470 Toll Revenue Study
Denver, Colorado
Client: E-470 Public Highway Authority
Services Provided: Traffic and Revenue Services

Vollmer was retained by the E-470 Public Highway Authority to update traffic and revenue forecasts for the completed three segments of the E-470 toll road and to conduct a new traffic and revenue feasibility study for the proposed Segment IV, which would complete a half-loop around the city of Denver. The study included updating and streamlining an existing traffic forecast model by incorporating new information pertaining to land use and development patterns.



Project Title/Location: West Virginia Toll Road and Bridge
Feasibility Studies, West Virginia
Client: West Virginia Toll Road Study Commission
Services Provided: Traffic and Revenue Studies

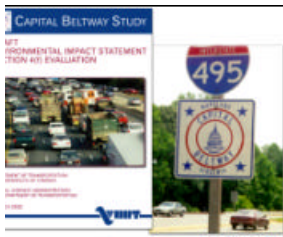
For the West Virginia Toll Road Study Commission, Vollmer prepared traffic and revenue studies to determine the viability of constructing thirteen highways and five bridges as toll facilities. Over 700 miles of roadway throughout the state were analyzed and recommendations were made as to which facilities merited further consideration. Based on the results of this preliminary investigation, three highway corridors were selected for more detailed engineering and traffic and revenue studies.



Project Title/Location: Highway 407 ETR Study
Toronto, Canada
Client: Ontario Road development Corporation
Services Provided: Traffic and Revenue Studies

Vollmer completed a traffic and revenue study for the Highway 407 ETR privatization effort. Our client, the Ontario Road Development Corporation was one of the concessionaires bidding on the project. Vollmer completed a review of traffic demand, congestion pricing and time-of-day pricing. A unique aspect of this project was the non-stop toll collection system which uses no toll plazas. Tolls were collected either by electronic toll collection via an electronic tag or by video license plate imaging, which generated a bill to the registered driver.

Parsons Transportation Group is dedicated to environmental management that balances a client's goals with a practical relationship between natural and human resources. That is why we work to understand all the natural and human components of a project before we develop measures and tools to mitigate and manage project impacts. Our teams assess compliance of engineering designs with regulatory permit requirements, and we communicate with project stakeholders to assure full understanding of project issues and obstacles. Our teams of specialists and managers deployed throughout the county ensure not only that final project designs are buildable, but that they are also environmentally responsible.



Project Title/Location: Capital Beltway Study-Northern Virginia
Client: Virginia Department of Transportation
Services Provided: MIS and EIS

Parsons was retained by the Virginia Department of Transportation (VDOT) to conduct a Major Investment Study (MIS), an Environmental Impact Statement (EIS), and associated public involvement activities for the Virginia segment of the Capital Beltway, surrounding Washington, D.C. The Beltway in Virginia connects with three radial freeways, crosses radial rail lines, and provides the only freeway crossings into Maryland. Due to a lack of alternate routes on other freeway or arterial routes, the Beltway provides a critical link for most trips in northern Virginia, especially during the peak hour.

During the MIS phase of the project, Parsons defined the corridor transportation problem, developed a range of potential solutions, formulated screening criteria, conducted a two-phase evaluation process, identified environmental constraints, and compiled extensive public and agency coordination materials. Parsons also developed the overall study methodologies to allow coordination with an independent MIS for the Maryland portion of the Beltway and for other ongoing transit and highway corridor studies.



Project Title/Location: Manassas National Battlefield Bypass EIS
Northern Virginia
Client: Virginia Department of Transportation
Services Provided: Environmental Impact Statement

Parsons is preparing an Environmental Impact Statement and preliminary design study for the Manassas National Battlefield Park Bypass. The Manassas National Battlefield Park, which is located in a rapidly suburbanizing area of northern Virginia, was the site of two major Civil War battles, including the first major engagement of the Civil War. Two roadways, U.S. Route 29 and VA Route 234, transect the park and are used by a conflicting mix of park, commuter, and industrial traffic. The presence of Routes 29 and 234 and the conflicting mix of traffic have resulted in traffic safety and congestion problems, negative impacts to traffic have resulted in traffic safety and congestion problems, negative impacts to visitor experience and interpretation, and difficulty for basic park management and operations.

The study analyzes the impacts of relocating both Route 29 and Route 234 from their current locations within the Park, and is being conducted jointly by the Federal Highway Administration and the National Park Service. The project includes preparation of traffic studies, cultural resource, socioeconomic, and natural resource evaluations, alternatives development, and management of the public information campaign. The project was awarded to the Fairfax office of Parsons Transportation Group through an existing IDIQ contract with FHWA.



Project Title/Location:	Woodrow Wilson Bridge Improvement Study Northern Virginia
Client:	Virginia Department of Transportation
Services Provided:	Environmental Impact Statement

A Draft Environmental Impact Statement and technical reports were prepared addressing wetlands and water quality, hazardous materials, cultural resources, socio-economics, and other important issues. Two Supplemental Draft EISs were then prepared to reflect current changes to proposed alternatives. Upon identification of a preferred alternative, a Final EIS was prepared. In addition, PTG developed a project-specific integrated environmental/regulatory process that was adopted by the participating agencies. Finally, PTG assisted in the development of a Section 106 Memorandum of Understanding which was fully executed and in the drafting of the Record of Decision.

1e. Include the address, telephone number, and the name of a specific contact person for an entity for which the firm/consortia or primary members of the consortia have completed a similar project.

Team References

Team Member	References/Contacts
	Mr. Kevin Spain Washington Metropolitan Area Transit Authority 600 5 th Street, NW Washington, DC 20001 202/636-3411
	Mr. Robert C. Edwards District Construction Engineer Virginia Department of Transportation 1401 E. Broad Street Richmond, Virginia 23219 804/786-2783
	Mr. Frank Gee Chief of Operations Virginia Department of Transportation 1401 E. Broad Street Richmond, Virginia 23219 804/786-2785
	Mr. John McCracken Director of Transportation County of Chesterfield, Virginia P.O. Box 40 Chesterfield, Virginia 23832 804/748-1890
	Lane B. Ramsey County Administrator County of Chesterfield, Virginia P.O. Box 40 Chesterfield, Virginia 23832 804-748-1190

1f. Provide a financial statement of the firms/consortia and each major partner. Submit the most recent Securities and Exchange Commission 10-K and 10-Q reports, if such reports have been filed

Firms' Financial Information

The firms of the Project Team are privately held. Financial information for the Project Team is located at Tab 3A, Project Financing, Confidential and Proprietary Information.

1g. Include any planned participation of small, women, and minority owned business during the project and implementation

Small Business and MBE Program

The Clark Construction Group, Inc. and Shirley Contracting Company, LLC have a long and distinguished history of providing contracting opportunities to small, minority and disadvantaged business concerns. As leaders in our respective industries, both firms lead by example in maximizing the utilization of SBE/MBE/DBE firms. Each project that we become involved with in varying localities has unique needs and our programs are tailored to meet these needs. In all of our completed projects to date, our firm's have either met or exceeded the requirements set for the project, a record in which we take great pride. On this project, we will strive to maximize the use of available disadvantaged business firms with a proactive approach in all facets of the project.

The Project Team is committed to maximizing the Virginia based SBE/DBE/MBE participation for the project. As experienced constructors who perform a majority of their work in Virginia, we have access to numerous SBE/DBE/MBE firms, have developed long-standing and successful relationships working with SBE/DBE/MBE firms and are uniquely qualified to understand their strengths and capabilities. We plan to target these firms for participation once the construction packages become available.

One of the principle design firms on our Project Team, Austin Brockenbrough & Associates, L.L.P., is a Small Business Enterprise located in Chesterfield County, Virginia

Our goals for participation will be simple; we will work diligently in accordance with the policies and standard practices of the Virginia Department of Transportation for SBE/DBE/MBE participation, and effectively ensure that numerous opportunities for participation exist at varying levels in the project.

Project Characteristics

2a. Provide a description of the transportation facility or facilities, including the conceptual design and all proposed interconnections with other transportation facilities. Describe the project in sufficient detail so the type and intent of the project, the location and the communities that may be affected are clearly identified. Describe the assumptions used in developing the project. The project description should be prepared in a way that fully recognizes any federal and/or Commonwealth requirements to analyze other project alignments and alternatives.

Description of Transportation Facilities

The proposed western extension of the Powhite Parkway (the “Western Extension”) will consist of approximately 9 miles of new roadway facility, extending westward from the interchange at Virginia Route 288 and ending at a new interchange on U.S. Route 360. Once integrated with VDOT’s existing portion of the Powhite Parkway (the “VDOT Powhite”) and the Richmond Metropolitan Authority’s Richmond Expressway System (the “Richmond Expressway System”), Richmond and Chesterfield County will have a toll road system that addresses the region’s congestion and traffic needs in a cost effective and efficient manner (the “Project”).

The Western Extension will have five (5) grade-separated interchanges and three (3) additional overpasses along this proposed corridor. This proposed roadway extension will significantly relieve the severe traffic congestion presently experienced along the Route 360 corridor, particularly east of Woodlake. The Western Extension will also significantly improve safety, traffic flow, air quality and enhance economic development within the region. The program includes the following interchanges and overpasses studied, designed, financed, and constructed under the provisions of the Virginia Public-Private Transportation Act (PPTA):

Grade Separated-Interchanges

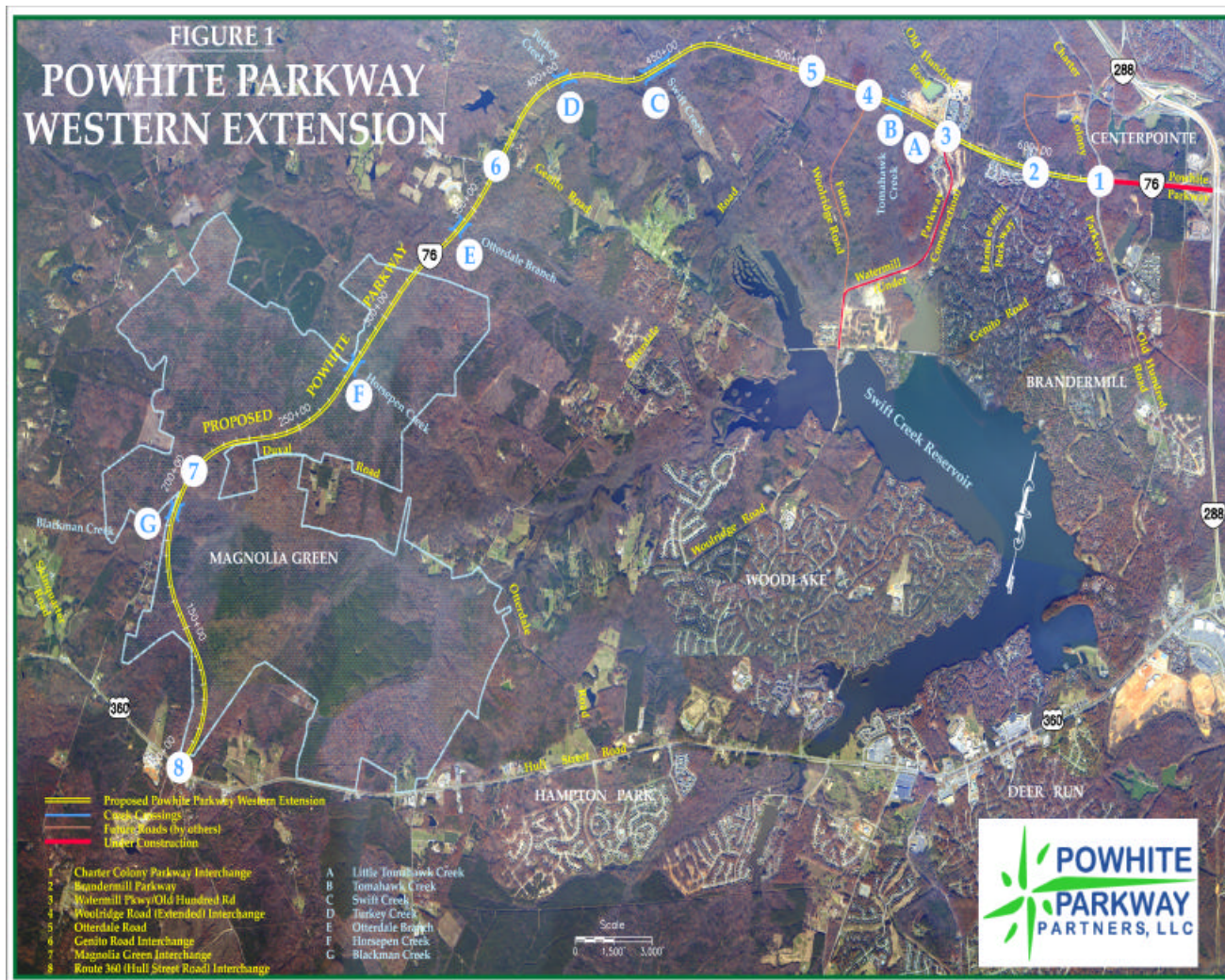
1. **Charter Colony Parkway (Coalfield Road) Interchange**
2. **Woolridge Road (Extended) Interchange**
3. **Genito Road Interchange**
4. **Magnolia Green (vicinity of Duval Road) Interchange**
5. **Route 360 (Hull Street Road) Interchange**

Overpasses

1. **Brandermill Parkway**
2. **Watermill Parkway/Old Hundred Road**
3. **Otterdale Road**

A Conceptual Location Map is shown as Figure 1 and depicts the approximate interchange locations. Descriptions of the program elements are presented later in this section.

The program elements listed above represent an overall program of transportation infrastructure improvements to move people and goods more efficiently and safely through the region. This project will be designed, financed and constructed for the benefit of the citizens of Central Virginia and Chesterfield County, the traveling public, businesses, tourists, and to enhance public safety and emergency services.



The Virginia Department of Transportation's (VDOT's) current Virginia Transportation Development Plan includes funding for preliminary engineering and right-of-way acquisition for widening Route 360 to eight (8)

lanes between Swift Creek and Spring Run Road and to six (6) lanes between Spring Run Road and Winterpock Road. However, recent traffic studies have concluded that these improvements will not accommodate traffic growth in the foreseeable future. Approved residential and commercial rezoning of large tracts of land such as Magnolia Green in western Chesterfield County will further accelerate traffic growth in the Route 360 corridor. The western extension of the Powhite Parkway will provide relief to the traffic congestion in the region in a timely and economical way, which would not be possible in the foreseeable future under the current Virginia Transportation Development Plan.

Construction of the proposed improvements and integration with the existing VDOT Powhite and the Richmond Expressway System will expedite traffic flow along the corridor; relieve congestion on existing routes, allow for better and faster access to downtown Richmond and surrounding counties for employees, commuters, maintain air quality in this region, and provide improved access to new and existing employers in the area.

The Western Extension is important for the local as well as the Commonwealth's overall economy and its construction should be expedited as quickly as possible to maximize the resulting economic, environmental and social benefits.

Design Standards

The VDOT Powhite was designed and constructed as a limited access toll road. The proposed extension is also being designed as a limited access toll road under VDOT design criteria for "Other Principal Arterial" with a minimum design speed of 60-mph. All design and construction shall be in accordance with VDOT and AASHTO design guidelines and policies. Any deviations will be addressed on a case by case basis.

Alignment

As illustrated in Figure 1, the proposed project alignment begins at the end of VDOT Powhite near the intersection of Charter Colony Parkway. The alignment proceeds in a generally western direction, crosses Swift Creek and Genito Road, and then turns south through the Magnolia Green development. In general terms, this alignment has been presented at a series of Chesterfield County public hearings dating back to the adoption of Chesterfield County's Thoroughfare Plan in 1989 and more recently during the Magnolia Green rezoning in 1991.

The interchange configurations which were presented at these public hearings were based on a Design Year of 2010. Updated traffic projections will be developed as part of this proposal based on a Design Year of 2025. With updated design traffic data, the detailed configuration of several of the planned interchanges may warrant further consideration. The need to consider such items as directional or semi-directional ramp connections, additional access provisions, collector-distributor roadways and possibly even entirely different types of interchange configurations may arise at some locations. All designs will be evaluated in terms of operations, safety, environmental impacts and cost, and coordinated with local, State and Federal officials. Public participation programs will be developed and implemented based on the overall needs of the Corridor Improvement Program and the specific needs of the various program elements.

Detailed descriptions of the concepts of each of the project elements are included in Section 2.a.2.

Typical Sections

The typical mainline section of the proposed Powhite Extension consists of four twelve (12) foot lanes of pavement separated by a grass median of varying width or a median barrier through confined areas. The shoulders will be thirteen (13) feet in fill areas and ten (10) feet in cut areas with eight (8) feet paved. Figure 2 represents the proposed typical section.

The 200-foot minimum right-of-way ensures sufficient room for roadway widening in the future should additional capacity be required. The right-of-way also would accommodate a corridor for commuter rail if desired at some point in the future.

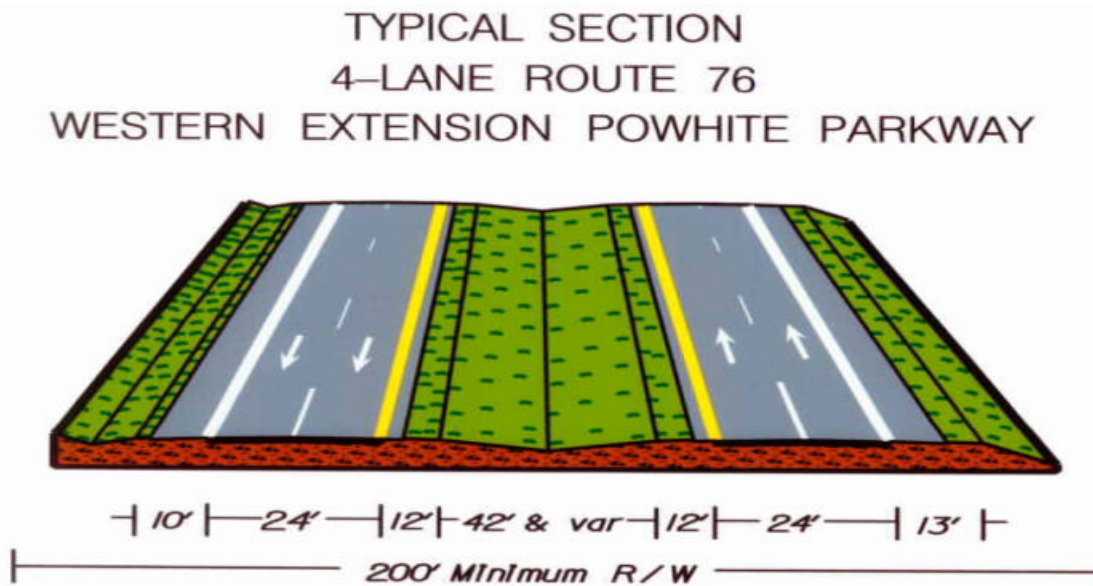


Figure 2

Toll Booths and Plazas

Toll collecting facilities will be required at strategic points to collect revenue. The Western Extension will make use of the latest available technologies by incorporating Electronic Toll Collection (ETC) facilities. Safety, traffic flow, motorist convenience, environmental, and visual considerations will determine the location of these facilities. ***The Smart Tag system will be incorporated on this project to ensure seamless integration with the existing system currently used in Virginia including both the VDOT Powhite and the Downtown Expressway System.***

Project Description

Scope of Services

In close coordination with VDOT and Chesterfield County, PPP will conduct appropriate planning and feasibility, economic growth and environmental studies, and then design, finance, and construct the Western Extension to best meet the needs of the region. Environmental documents which will support the various permits required for the project will be identified and completed. We recommend that VDOT maintain the responsibility and assume the lead role for the environmental coordination that would be required, however, PPP is willing to undertake the development of the necessary documents as part of the private sector's contribution to the project. In either case, PPP stands ready to work in cooperation with VDOT to navigate the environmental process in the best interests of all parties.

Upon completion of a Comprehensive Agreement, the Program Team will perform the following activities as appropriate:

- Overall Program Management
- Transportation and Environmental Planning:
 - Analysis of existing traffic conditions and the projection of the appropriate Design- Year traffic
 - Development of design concepts and conceptual plans
 - Studies of the feasibility and environmental impacts of the conceptual improvements
- Engineering Design:
 - Surveying
 - Soils analysis and geotechnical investigations
 - Roadway and bridge plans and specifications
 - Utility relocations design
- Right-of-Way Acquisition
- Construction:
 - Utility relocations
 - Roads, bridges, and associated items
- Technology and System Integration with the VDOT Powhite and the Richmond Expressway System
- Construction Management:
 - Scheduling
 - Quality control testing
 - Quality assurance inspections
 - Quantity verification and progress payments
- Underwriting and financial Management (refer to Tab 3, Project Financing, Confidential and Proprietary Information)
- Operation of the system for the concession period

We expect operational efficiencies to be generated by the operation of a regional toll road system. Potential efficiencies include integrated customer service functions, electronic toll collection interoperability, regionally coordinated marketing plans, and integrated back room operations. PPP will rely upon the expertise of Cofiroute Global Mobility to investigate these potential efficiencies.

The overall program will be designed and constructed in accordance with all applicable specifications, standards, and manuals, including, but not limited to the following:

- AASHTO Policy on the Geometric Design of Highways and Streets
- VDOT Road and Bridge Specifications
- VDOT Road and Bridge Standards
- VDOT Roadway Design Manual
- Virginia Erosion and Sediment Control Handbook
- Work Area Protection Manual
- Manual on Uniform Traffic Control Devices

In addition, each element will be designed and constructed in accordance with appropriate environmental and permitting documentation and other regulatory documents and plans.

In conducting feasibility and environmental studies, PPP will develop optimum interchange configurations for existing and projected traffic conditions. The studies will be closely coordinated with appropriate members of VDOT and, Chesterfield County. The studies will also include a public involvement process, in accordance with policies and procedures determined in coordination with the Department and the Counties. PPP will subsequently design the improvements, while coordinating the public involvement process, as appropriate, in close collaboration with VDOT and Chesterfield County. PPP will also finance these improvements in accordance with

the Financing Plan described at Tab 3A of this proposal. Finally, PPP will construct the improvements, in accordance with the approved design and all applicable specifications and standards, coordinating closely with construction administration staff members from both VDOT and Chesterfield County.

Design Concept

During the design period, in a true design-build fashion, other activities will commence, e.g., ROW purchase, utility relocation, and initial construction. The construction program will be phased to minimize disruption to motorists. The schedule for all these activities is shown in Section 2.e.

For each of the project's interchanges, the following descriptions contain an outline of the purpose and need for the interchange and the concept of the scope of improvements.

1. Charter Colony Parkway (Coalfield Road) Interchange

Currently, an at-grade intersection exists at the Charter Colony Parkway and Route 76 connection. The proposed improvements to the Charter Colony Parkway interchange consist of a bridge carrying Charter Colony Parkway Road over Route 76.

Purpose and Need - This improvement will eliminate this signalized at-grade intersection which would improve the flow of traffic.

Conceptual Design and Interconnection with Other Transportation Facilities. The approximate location for the Charter Colony Parkway interchange is as shown in Figure 1 and is described as follows:

- Grade separation with Charter Colony Parkway crossing Route 76
- Providing access to the Centerpointe Office Park and Waterford Industrial Park
- Providing access to the areas between Genito Road and Route 60

This interchange configuration will improve safety and traffic operations relative to the following:

- Genito Road
- Centerpointe Office Park
- Future Bon Secours Hospital located northwest of this interchange
- Waterford Industrial Park
- Eastern area of the Brandermill Subdivisions
- Queensmill and Walton Park Subdivisions

2. Brandermill Parkway

Currently, an at-grade intersection exists at the Brandermill Parkway and Route 76 connection. The proposed improvements to the Brandermill Parkway connection consist of a single on-ramp onto Route 76 and an extension of Brandermill Parkway north of Route 76

Purpose and Need - This project will eliminate an at-grade intersection, thereby improving the flow of traffic.

Conceptual Design and Interconnection with Other Transportation Facilities. The approximate location of the Brandermill Parkway connector is also shown in Figure 1 and consists of an on-ramp from northbound Brandermill Parkway onto eastbound Route 76 only, with no direct access provided across Route 76 along Brandermill Parkway. Further access to properties immediately north of the proposed intersection, including the Brandermill Woods facilities, will require additional roadway enhancements north of Route 76. Existing Brandermill Parkway would be extended northward and eastward to connect with the proposed Bon Secours

Hospital roadway near Charter Colony Parkway. This Brandermill Parkway extension would provide an alternate access to parcels north of Route 76 and maintain the flow of traffic in the area.

This configuration will also allow for the following future movements and further development as a partial interchange of a directional nature:

North Side of Route 76

- Exit westbound Route 76 to northbound Brandermill Parkway
- Enter westbound Route 76 from southbound Brandermill Parkway

South Side of Route 76

- Exit eastbound Route 76 to southbound Brandermill Parkway

Alternatively, improvements to the Brandermill Parkway connection could consist of routing existing Brandermill Parkway over Route 76 utilizing a bridge structure. No direct access to Route 76 would be provided at this location and the extension of Brandermill Parkway to the north would not be constructed as a part of this program under this scenario.

Watermill Parkway / Old Hundred Road

Currently, an at-grade intersection exists at the Watermill Parkway / Old Hundred Road and the Route 76 connection. The proposed improvements to the Watermill Parkway / Old Hundred Road connection consist of routing the existing roadways over Route 76 utilizing a bridge structure. No direct access to Route 76 would be provided at this location.

Purpose and Need - This project will eliminate this at-grade intersection and improve the flow of traffic.

Conceptual Design and Interconnection with Other Transportation Facilities. The approximate location for this Watermill Parkway / Old Hundred Road connector is as shown in Figure 1 and is described as an overpass to preserve current traffic flow along the existing roadways. A portion of Watermill parkway extending southward to connect Woolridge Road is currently under construction and will provide access to the properties immediately adjacent to this intersection.

4. Woolridge Road (Extended) Interchange

Chesterfield County's currently approved Transportation Thoroughfare Plan provides for Woolridge Road to be extended from Genito Road northward to Proposed Route 76. This project would provide the needed interchange at this location.

- Woolridge Road, from Genito Road to Watermill Parkway is currently under construction by the private development community
- Woolridge Road, from Watermill Parkway to Route 76 is to be constructed by the private development community as required by a prior Chesterfield County Zoning case

Purpose and Need - This project will improve the flow of traffic by providing direct access to Route 76 from existing communities and proposed developments within the Upper Swift Creek area along the Woolridge Road corridor.

Conceptual Design and Interconnection with Other Transportation Facilities. The approximate location for the Woolridge Road (Extended) interchange is as shown in Figure 1 and is described as follows:

- A partial grade-separated interchange of a directional nature with Woolridge Road crossing Route 76

This partial interchange configuration will consist of the following movements, while allowing for future design to accommodate additional movements as the need arises:

North Side of Route 76

- Exit westbound Route 76 to southbound Woolridge Road

South Side of Route 76

- Enter eastbound Route 76 from northbound Woolridge Road

This interchange will improve safety and traffic operations relative to the following:

- Providing access to the Woodlake communities and surrounding areas
- Reducing traffic congestion on existing Route 360 and Genito Road
- Reducing traffic congestion on the surrounding secondary roadways

5. Otterdale Road

Chesterfield County's currently approved Transportation Thoroughfare Plan does not provide for an Otterdale Road and Route 76 interchange. The proposed improvements at the Otterdale Road intersection consist of routing Otterdale Road over Route 76 utilizing a bridge structure. No direct access to Route 76 would be provided at this location.

Purpose and Need - This project will improve the flow of traffic by providing access to Route 76 from Otterdale Road via the proposed interchanges at Woolridge Road (Extended), Genito Road and at Magnolia Green (Duval Road).

Conceptual Design and Interconnection with Other Transportation Facilities. The concept for the Otterdale Road intersection is described as an overpass for Otterdale Road crossing Route 76.

6. Genito Road Interchange

Genito Road is a two-lane rural arterial roadway that provides east-west access through Chesterfield County's Clover Hill and Matoaca Districts to and from Powhatan County.

Purpose and Need – An interchange at Genito Road will improve traffic flow by providing additional access to Route 76 from existing and proposed communities in western Chesterfield and eastern Powhatan Counties.

Conceptual Design and Interconnection with Other Transportation Facilities. The approximate location of the Genito Road interchange is shown in Figure 1 and described as follows:

- A full grade-separated interchange (either diamond or cloverleaf) with Genito Road crossing Route 76.
- It is anticipated that a portion of Genito Road will be relocated to facilitate construction of the interchange, assist with maintenance of traffic during construction, and minimize impacts to existing property owners within the Genito Road corridor.
- Construction of this interchange will support other proposed transportation corridor improvements between western Chesterfield and eastern Powhatan Counties as envisioned by Chesterfield County.

This interchange configuration will improve safety and traffic access relative to the following:

- Genito Road corridor
- Dorset, Moseley, and Flat Rock areas of Powhatan County
- Clover Hill Athletic Complex (Chesterfield County park)

7. *Magnolia Green (vicinity of Duval Road) Interchange*

At 3,892 acres and a possible 4,886 new residential units, Magnolia Green is the largest master-planned residential community in the metro Richmond area. Chesterfield County's Thoroughfare Plan and the master plan for Magnolia Green include provisions for the extension of Powhite Parkway as well as an interchange in the Duval Road area. The zoning case requires that the developer dedicate 120' of right of way for the Powhite Parkway Extension through the property and reserve an additional 80' of right of way for future planned upgrades as well as another 68 acres for interchanges at Route 360 and "Site Road K" (near Duval Road).

Purpose and Need - This interchange will improve traffic flow by providing direct access to Route 76 from proposed communities in western Chesterfield County, specifically Magnolia Green.

Conceptual Design and Interconnection with Other Transportation Facilities. The approximate location of the Magnolia Green interchange is shown in Figure 1 and described as follows:

- A grade-separated interchange with connections to planned site roads to be developed as part of the Magnolia Green development.
- It is anticipated that this interchange will be constructed in the vicinity of Duval Road, with access to existing Duval Road. This will accommodate the greatest amount of site generated traffic and addresses the concerns for adjacent residents along Duval Road.

This interchange configuration will improve safety and traffic access relative to the following:

- Approximately 65,000 average daily trips are expected to be generated by the Magnolia Green development. Without this interchange these trips would be distributed along Duval, Otterdale, and Woolridge Roads (all generally unimproved rural secondary roads) as well as Route 360 (already over-capacity during peak hour traffic flows).

8. *Route 360 (Hull Street Road) Interchange*

The project's western terminus is expected to be an interchange at Route 360. Although the County's Thoroughfare Plan anticipates the further extension of Powhite Parkway through southwestern Chesterfield County (and back to I-95 north of Colonial Heights), that future work is not included within the scope of this project. However, the planned interchange will be designed to accommodate this future extension.

Purpose and Need - This interchange will improve traffic flow by providing additional access to Route 76 from existing and proposed communities in western Chesterfield County, such as Magnolia Green, Hampton Park, Deer Run, and others. It will also divert eastbound traffic from areas west of Magnolia Green onto Powhite Parkway and help to relieve the existing traffic burden on Route 360 during the morning and afternoon peak hours.

Conceptual Design and Interconnection with Other Transportation Facilities. The approximate location of the Route 360 interchange is shown in the exhibit and described as follows:

- A full (or partial) grade separated interchange, depending on the location and opportunity to align with existing or planned roadways south of Route 360.
- One possible location for this interchange has been identified on the transportation master plan for Magnolia Green and reflected in the County's Thoroughfare Plan. This location was predicated on the availability of right of way to be reserved by the developer of Magnolia Green. It is anticipated that a more suitable interchange location, providing improved access to Route 360, can be identified during the preliminary design and public involvement processes.

This interchange configuration will improve safety and traffic access relative to the following:

- Without this interchange traffic will continue to increase on Route 360. In 2002 VDOT reported that traffic counts on Route 360 between Route 288 and Spring Run Road climbed to 51,000 vehicles daily. Further to the east (at Brandermill) the traffic count is higher, and by 2025 VDOT projects over 95,000 vehicles per day.
- Also in 2002, construction funding for adding lanes to Route 360 between Swift Creek and Winterpock Road was eliminated. The extension of Powhite Parkway to Route 360 will help to relieve the traffic burden that is driving the need for the Route 360 widening project.
- As noted previously, the widening of Route 360 proposed under the VDOT project will not accommodate the future traffic growth anticipated in the corridor, and additional parallel roads such as Powhite Parkway Extension are essential.

Non-Navigable Stream Crossings

This project requires crossing the following Non-Navigable Streams:

- A. Little Tomahawk Creek
- B. Tomahawk Creek
- C. Swift Creek
- D. Turkey Creek
- E. Otterdale Branch
- F. Horsepen Creek
- G. Blackman Creek

Approximate bridge lengths and types were determined based upon flood plain limits for each stream crossing. During the design phase, various options will be examined to determine the most efficient manner to properly span these environmentally sensitive areas. The specific methodology of crossing these streams will be determined after consultation with the appropriate Local, State and Federal authorities having jurisdiction over this project.

2b. Include a list of all federal, state, and local permits and approvals required for the project and a schedule for obtaining such permits and approvals.

Permits and Approvals

All required permits and approvals will be identified during the Detailed Proposal Phase for this improvement program. Some of the permits that may be required are:

- Federal:
 - Section 404 Permit - U.S. Army Corps of Engineers
 - Section 106 National Historic Preservation Act
 - Section 107 Endangered Species Act
 - Section 4(f) U.S. Department of Transportation
 - Environmental documentation

- State:
 - Department of Environmental Quality, Water Protection Permit
 - Virginia Marine Resources Commission, Subaqueous Bed Permit
 - Department of Conservation & Recreation
 - Department of Health
 - VPDES, erosion and sediment controls permits
 - Approval of construction plans by VDOT
- Local-Permits for temporary construction sites and support facilities
- Certificates of occupancy for support facilities
- Grading and construction permits
- Water, sewer, and other connection permits as applicable for utility relocations

Permits/Approvals Schedules

This proposal assumes that permits will be identified and approved within the schedule outlined for the project, so as not to delay the design and construction schedule. See Project Schedule in Section 2.e.

2c. Without completing an Environmental Impact Statement, identify any anticipated adverse social, economic, and environmental impacts of the project. Specify the strategies or actions to mitigate known impacts. Identify the projects positive social, economic, and environmental impacts of the project.

Environmental Considerations for Western Extension

Because we anticipate no federal funding would be involved in the proposed highway, an environmental document under the Federal Highway Administration's National Environmental Policy Act (NEPA) regulations will not be required. However, federal action by another federal agency will be involved, in the form of issuance of Clean Water Act permits by the U.S. Army Corps of Engineers, thus triggering that agency's NEPA procedures. Further, because of the nature of the project and the possibility of concerns from citizens, interest groups, and local government, environmental issues likely will be important in the overall project development process, justifying a report to document those issues (VDOT often prepares an "Environmental Considerations" report for non-federal-aid projects that don't require a formal NEPA document). The following items provide an overview of likely social, economic, and environmental impacts of the project, along with strategies or actions to mitigate those impacts.

Social

The proposed Western Extension is an important element of the regional transportation system. As such, it would provide mobility and accessibility for social interaction throughout western Chesterfield County. Although much of the corridor is rural, there is potential for displacements of homes and businesses by the road alignment and by interchanges proposed for major intersecting roads. PPP will strive to minimize these impacts through sensitive and creative design that would avoid displacements to the maximum extent possible. Unavoidable adverse impacts in this regard would be mitigated by relocating displaced families and businesses in a fair and equitable manner that does not discriminate on the basis of race, color, sex, or national origin and that respects the financial means of the displacees. Another key item to address will be the potential for induced development, that is, development that may be stimulated or accelerated by the provision of a major new highway with interchanges at cross roads that make land around those interchanges more attractive for development. The positive social

impacts of the project would be primarily in the area of travel mobility among activity centers within and beyond the study area.

Economic

The proposed Western Extension will become a major artery of local and regional commerce by enhancing mobility among activity centers and by providing enhanced access to developable lands near the interchange areas. The potential adverse economic impacts of the project would be mostly localized in the form of possible business displacements directly along the corridor or in the interchange areas and some loss of local property tax revenues arising from the conversion of private lands to public highway right of way. Beneficial economic impacts of the project would include generation of income for construction labor, equipment, and materials, much of which could accrue to local residents, businesses, and economies during the construction period. With completion of the project, the mobility and safety improvements will likely increase economic productivity and enhance the attractiveness of the corridor as a location for prospective businesses and industry. Some aspects of the operation of the completed roadway, such as the proposed toll facilities, also will provide employment opportunities.

Environmental

Any time a new highway is put through undeveloped lands, negative environmental effects are possible. The proposed project corridor passes through environmental resources that will require close attention and consideration during project development. Some of the anticipated environmental considerations include the following:

Air Quality

Owing to the mostly rural nature of the corridor and the ongoing reductions in emissions rates from motor vehicles, air quality impacts of the project are not expected to be significant. However, the Richmond Area may be designated a non-attainment area under the anticipated new National Ambient Air Quality Standards for ozone. Coordination with the Metropolitan Planning Organization may be needed to address this issue. During construction, the contractors will employ control measures to suppress dust generated by construction operations. Once completed, the Western Extension should improve air quality in the area by reducing existing traffic congestion on Route 360 and Genito Road.

Waters and Wetlands

There are streams and wetlands that the project will cross. Installation of drainage structures (culverts and bridges) will necessarily impact them. Impacts may include the loss of aquatic and wetland habitats and their functions due to direct displacement by the expanded footprint of the roadway and from temporary siltation during construction. The contractors will employ erosion and sediment controls to minimize the adverse effects of siltation. All applicable federal and state water quality permits will be acquired from the appropriate agencies and the construction will be accomplished in strict accordance with the terms of those permits. Finally, losses of streams and wetlands that may occur will be compensated in a manner to be negotiated with the regulatory agencies during the permit acquisition process.

The Swift Creek Reservoir could be a very sensitive issue on this project because of its use as a major drinking water supply by Chesterfield County, and because practically the entire project would be within the reservoir watershed. Members of our Project Team have found on other projects in reservoir watersheds that citizens and local officials have large concerns about highway runoff and induced development that could cause degradation of the water supply. It may be necessary to implement extraordinary stormwater management measures as part of the project, and to coordinate early-on with citizens and officials to alleviate concerns in this regard.

Wildlife and Habitat

The Western Extension may displace various types of vegetative cover (forest, shrubs, grassland) that serve as wildlife habitat. Wildlife utilizing these areas are species typically adapted to life in fragmented and, in some

cases, frequently disturbed, habitat areas. At this point, we have no knowledge of any federally listed threatened or endangered aquatic or terrestrial animals or plants within the corridor. Coordination with state and federal environmental resource agencies responsible for these issues would need to be accomplished during the project development process to resolve any concerns in this regard.

Historic/Cultural Resources

At this point, we have no significant information on historic properties or evidence of cultural resources along the corridor. However, efforts will be undertaken to consult with the Virginia Department of Historic Resources to identify properties that may have been previously recorded. One known site is the Midlothian Coal Mines Railway that once crossed in the path of Route 76, just west of Route 288. Additional efforts may be needed to record any historic properties that have not been identified before.

Strategies/Actions to Mitigate Impacts

During the Detailed Proposal phase, each area will be studied and analyzed in coordination with VDOT and the County, to identify any adverse social, economic, and environmental impacts. As appropriate, mitigations to these impacts will be planned and designed, coordinated with appropriate agencies, and executed.

Since the adoption of the County Thoroughfare Plan in 1989, Chesterfield County has been proactive in securing the rights-of-way for major transportation facilities through the zoning process. Approximately half of the Western Extension alignment includes proffered right-of-way.

Over four miles of the Western Extension will be through Magnolia Green, and under their 1991 zoning, the developer is required to dedicate (at the County's request) 120' of right-of-way along the entire corridor. The developer is also required to reserve an additional 80' of right-of-way for future planned upgrades as well as another 68 acres for interchanges at Route 360 and "Site Road K" (near Duval Road). These right-of-way reservations can be acquired by the County at a "not to exceed" price until 15 years after the approved zoning (i.e. through 2006).

2d. List the critical factors for the project's success.

Critical Factors

Following is a list of factors that are critical to the success of the Corridor Improvement Program ranging from development, design, financing, construction, and operations:

1. Approval of the project by the Commonwealth Transportation Board, and public support from Chesterfield County government officials.
2. VDOT and Chesterfield County agreement to work in partnership during the right-of-way process for possible condemnation or quick property takings if required.
3. Close coordination with VDOT, Chesterfield County, the general public, and all other stakeholders during all phases of the proposal and program.
4. A coordinated, collaborative public information effort by the public-private partnership—both public and private entities working together with similar goals and objectives.
5. Optimization of design for lowest cost, highest value to meet all requirements.
6. Accelerated acquisition of necessary right-of-way.

7. Adherence to proposal schedule.
8. Timely relocations of affected utilities.
9. Timely receipt of permits and approvals.
10. Strict controls during construction on safety, quality, schedule, and payment.
11. Identification and minimization of impacts to the Environment.
12. Performing a Detailed Traffic and Revenue Study for the Western Extension.
13. Effective integration with the VDOT Powhite and the Richmond Expressway System to achieve long-term system efficiencies.

2e. Identify the proposed schedule for implementing the project, including the estimated time for completion.

Project Schedule

The conceptual schedule of the Western Extension is shown on Figure 3. This proposed schedule lists only those critical activities required for planning and executing this project. Development of a detailed schedule will be completed during the Detailed Proposal phase.

While the proposed schedule is aggressive, it incorporates the following timesaving methodologies:

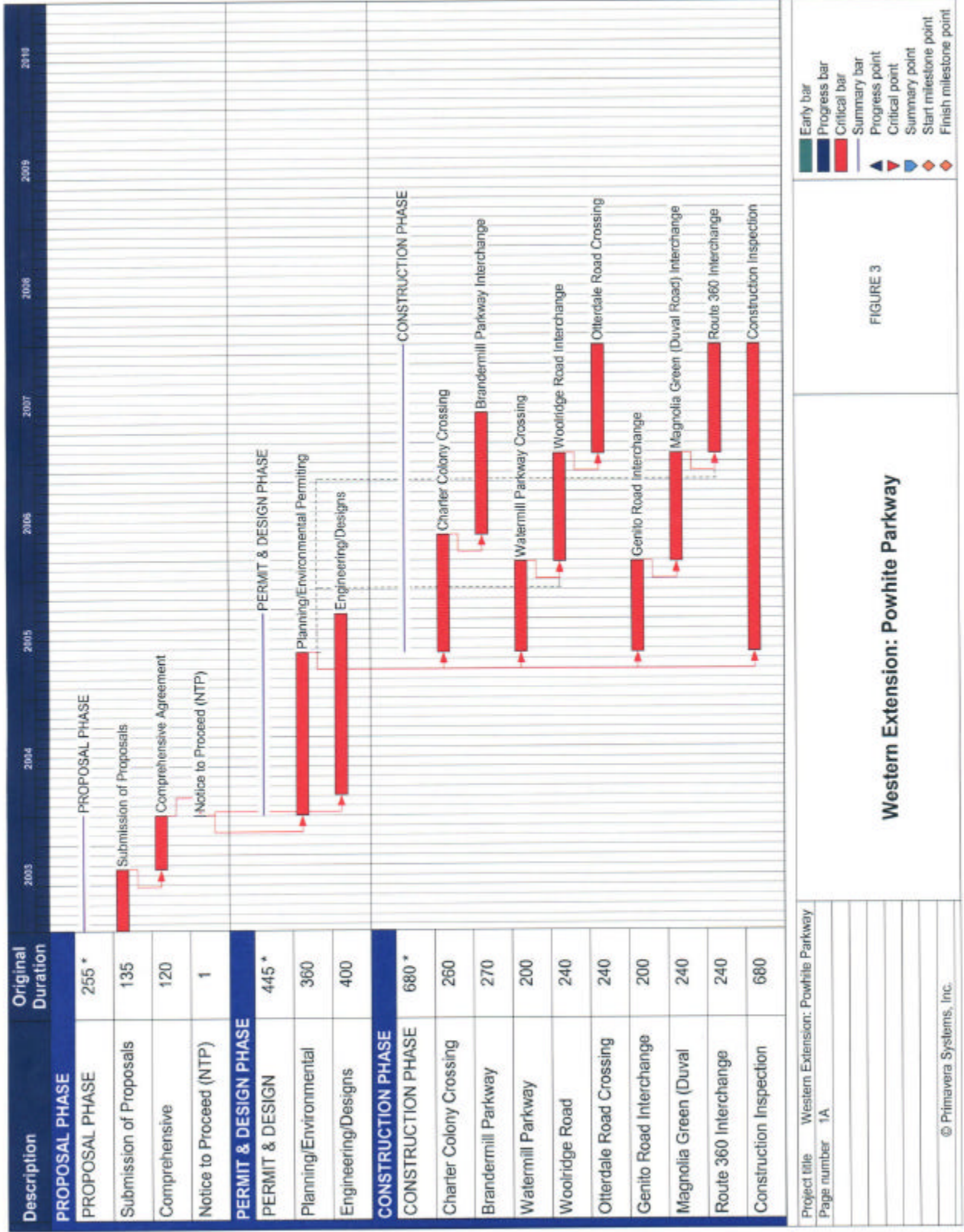
- Partnering among VDOT, Chesterfield County, the City of Richmond, the RMA and PPP.
- In-line coordination, review, and approval of planning studies, environmental documentation, and design plans and specifications with VDOT, Chesterfield County and other agencies.
- Acquisition of right-of-way, including accelerated acquisition or quick takings.
- Utility relocations performed in advance of road and bridge construction.
- Design-build techniques.
- “Fast track” methods, such as fast track permitting using VDOT techniques.
- Value engineering efforts during design and construction.

These time-saving methodologies or any fast-track process will not circumvent the public involvement process. Furthermore, safety and quality will remain critical from initial concepts to final construction completion.

2f. Address liability for design and construction, and assurances for timely completion of the project.

Design and Construction Liability

The liability for the design and construction of the project will rest with PPP. All work will either meet or exceed current federal, state, and local guidelines. Each contractor for each construction segment will be required to provide payment and performance bonds for its work. The design/build contract will include a liquidated damages provision to assure timely completion of the project. All design work will be submitted to VDOT for approval and construction oversight by VDOT will be a part of the process.



2g. Clearly state the assumptions related to ownership, legal liability, law enforcement, and operation of the facility.

Project Ownership

The title of the Project's right-of-way will be in the name of VDOT. Similarly, subject to financing requirements, PPP envisions that all improvements on the right-of-way, with the possible exceptions of the toll plazas and toll collection systems, will be owned by VDOT.

Legal Liability

PPP assumes legal liability normally associated with a design/build project. Legal liability associated with ownership rests with the Commonwealth of Virginia. The non-profit corporation and the operator will have operational liability and will provide appropriate insurance to cover the operational liabilities.

Law Enforcement

Similar to other PPTA projects, it is anticipated that the Virginia State Police will patrol as appropriate. Details will be addressed in the Comprehensive Agreement.

Operation of Facilities

The Project will be operated by Cofiroute Global Mobility pursuant to an operating agreement consistent with Internal Revenue Guidelines. VDOT will perform normal maintenance, subject to a reimbursement that would be subordinated to operating expenses and debt service. It is anticipated that the Project will need to fund a renewal and replacement fund in order to ensure long term maintenance and improvements.

2h. Provide information on any phased (partial) openings proposed prior to final completion of the project.

Phased Openings

It is the intent of PPP to minimize disruption to the traveling public during the construction of the Western Extension. Getting the work started quickly and finished on time—on an aggressive schedule—will deliver the greatest convenience to the public. The Western Extension's proposed alignment currently runs through undeveloped wooded areas. As such, the potential to minimize disruption to the public will be greatly reduced, as the work will take place on a new alignment. Because of this fact, and the planned accelerated construction schedule, the team feels there is little benefit to opening the road until the entire Western Extension is completed.

Where tie-ins with existing roadways or overpasses with existing roadways occur, phasing of the work will be required to minimize disruption. The exact dates of phased construction completion dates will be developed during the Detailed Proposal phase, in coordination with VDOT and the County.

Project Financing

The Conceptual Plan of Finance has been intentionally omitted as the information is considered to be Confidential and Proprietary.

PPP has developed a Conceptual Plan of Finance that does not rely upon funds from VDOT, Chesterfield County, or the federal government to complete a critical but unfunded transportation facility in Chesterfield County. PPP has established allowances for right-of-way and utility relocation expenses and VDOT is being asked to fund costs in excess of these allowances. The Conceptual Plan of Finance also contemplates that VDOT will continue to provide routine maintenance.

Public and Government Support

4a. Identify who will benefit from the project, how they will benefit, and how the Project will benefit the overall transportation system.

The Project will provide numerous benefits to various stakeholders in the corridor including the residents of the local community, current customers of both the Richmond Expressway System and the VDOT Powhite, Virginia taxpayers, business and industry in the corridor, the Commonwealth of Virginia and others. Some of the specific benefits of the Project are as follows:

Community Benefits

The Project will have numerous community benefits. These benefits include:

- A safer, more reliable highway facility.
- Additional economic opportunities in Chesterfield County and the Richmond Metropolitan area.
- Limited State and County resources can be allocated to other priority projects.
- Congestion relief by providing an alternative to the overburdened Route 360 corridor.
- Environmental benefits due to the reduced congestion.

Further, the development of the Western Extension satisfies VDOT's long-range vision for improvements in the corridor. Allowing the Project to be developed under the Public Private Transportation Act also provides a number of benefits to the taxpayers of Virginia.

Benefits to the Taxpayers of Virginia

Under conventional construction and funding mechanisms, it is highly unlikely that the proposed construction would take place in the next 10 years. PPP's proposal greatly accelerates the completion of this important facility. PPP's proposal provides many other benefits to the taxpayers of Virginia including:

- **Shifting of Risk-** One of the most important benefits accruing directly from the PPTA process is that risks, not only price and schedule, but also oversight and project coordination risks, are shifted from the VDOT to the project team. Although VDOT retains certain responsibilities that cannot be economically addressed by the private sector, others are specifically assumed by the private sector, thus allowing the department to focus its resources on other transportation priorities. Further, the risks of inflation are transferred from the state to the project team via a fixed price for the Project.
- **Financing Plan-**Our plan of finance allows the Commonwealth of Virginia and its citizens to realize the benefits of an improved corridor without delaying or taking funds from other planned transportation projects. VDOT's need to devote resources to the Western Extension, without risking the funding for other priority transportation projects, is very limited. Our team's plan of finance overcomes this limitation.

Benefits due to Improved Safety and Less Congestion

Perhaps the single most important aspect of our team's proposal is the improvement to driver safety and improved traffic flow resulting from the Western Extension of the Powhite Parkway.

The new facility will relieve pressure on the already overburdened Route 360 corridor and provide commuters with a seamless roadway connecting directly to downtown Richmond. New higher level of service alternates will reduce accidents, lower travel times between destinations and promote safer driving conditions.

Benefits to Existing Customers

The Project will also accrue favorable benefits to those members of the public currently traveling the VDOT Powhite and Richmond Expressway System. By operating these systems, along with the Western Extension as a single regional system, operational efficiencies should be achievable. These efficiencies, in addition to helping improve the seamless nature of using these roadways, should also help forestall the need for future increases in toll rates.

Economic Development Benefits

The Western Extension will create a number of economic development opportunities throughout the corridor and increase mobility for those who use it for work and shopping in addition to providing for the efficient movement of goods throughout the region.

The Western Extension will also have spin-off benefits for the entire region. Not only will the actual construction itself create new local jobs for the entire construction period, it will make the region more attractive to new and expanding businesses, providing additional job opportunities in the future.

It is also anticipated that by making the road safer and reducing congestion, commerce along the corridor will be more efficient, thus resulting in significant savings to the everyday commercial motorists. The improved traffic flow will enable carriers to reach their destinations in less time, reducing the costs associated with moving goods. Safer traveling conditions will also result in lowering the costs of doing business.

Virginia Department of Transportation Benefits

By electing to utilize the PPTA mechanism for project delivery, VDOT will be meeting the needs of roadway users in the rapidly developing residential areas of Chesterfield County. In addition, VDOT will be offering commuters who utilize the overcrowded Route 360 corridor with an alternative to daily gridlock.

Additional specific benefits that will accrue to VDOT include:

- ***Pavement Warranty*** –PPP’s proposal includes the option for a pavement warranty for the Western Extension. If accepted, this warranty will reduce future maintenance costs and increase the useful life of the roadway.
- ***Expedited Delivery*** -A secure funding source, as well as innovative design and construction processes to be utilized by our team, allows for the Western Extension construction to be completed years ahead of the current schedule.
- ***Consistent with VDOT Plans***-PPP’s proposal is consistent with the VDOT plan for the extension of the Powhite Parkway.
- ***Environmental Benefits***-By reducing congestion on Route 360, and thus the time that people spend idling in their cars because of accidents and other traffic problems,

environmental benefits will be realized. Because of increased capacity, safety and functionality, pollution will be reduced.

4b. Identify any anticipated government support or opposition, or general public support or opposition for the project.

Community and Government Support

The PPP team has met with representatives of Chesterfield County, local elected officials and the City of Richmond to discuss the advancement of the Project and received a positive response to the concept with a desire to work together. The need for the Western Extension is not new; it is part of the ultimate plan for this corridor. The main impediment to building the Western Extension has been a lack of funding. It is understood from the leaders of the County, from landowners and from private citizens that this project is a high priority. It is anticipated that local business groups will support the project.

Projects of this scope and size usually draw opposition from environmental groups, anti-growth supporters, and anti-toll groups. The PPP team will work to address the concerns of potential opposition groups through the public hearing process and will keep all stakeholders advised as to the progress of the Project through a public and community relations' effort. We are confident that with a collaborative effort, concerns regarding the project will be addressed and the stakeholders will support the development of the project.

Just as there are potential opponents to the Project, there will be many supporters. We anticipate that local businesses will support the project as well as frustrated commuters who want a viable commuting option that avoids the daily gridlock on Route 360. The PPP team has met with local business owners and talked with local development representatives. These local interests have approved projects in the pipeline and have been supportive of a project that will provide future residents with commuting options.

4c. Explain the strategy and plans that will be carried out to involve the agencies and public in areas affected by the project.

The success of the Western Extension will depend upon full public involvement in each step of the Project's review, design and construction process. PPP also wants to be a full partner with VDOT in disseminating information to affected citizens and to build public support for this plan. In order to accomplish this, PPP will implement a comprehensive public involvement strategy. Our vision is to keep people along the corridor informed every step of the way, so that they can fully appreciate the benefits of the Western Extension in meeting this area's rapidly expanding transportation needs.

The PPP Team has relevant experience in the development of PPTA projects and the development and implementation of public involvement programs. The team has experience in bringing together state, local and federal agencies into the process when these agencies are impacted by the project. The Team understands that its work will be subject to public scrutiny throughout the Project's duration. We understand this reality and will commit to manage the Project with the integrity and openness expected on regular VDOT projects

Project Compatibility

5a. Describe the significant benefits to the community, region or state. Identify any state benefits resulting from the project including the achievement of state transportation policies or other state goals.

The Project will provide significant benefits to the local community as well as the region and the state. A strong infrastructure system promotes economic growth and the extension of this road will provide benefits to the region for years to come.

Community Benefits-Financial

The Project will provide financial benefits to the community by creating operational economies and providing a much needed transportation facility, which will be paid for with private dollars. The Project will relieve VDOT and Chesterfield County of the need to fund the Western Extension at a time of tight budgets. The Project will result in improved travel times, translating into less time spent idling in traffic, improved safety, and lower costs for emergency services.

Economic Benefits-Community/State/Region

The Project will generate a host of economic benefits to the local community, the Richmond Metropolitan Area and the Commonwealth of Virginia. The proposed improvements will enhance existing and future development in the corridor. The public will be provided with improved access to commercial, retail, employment and residential areas and will enjoy a transportation network with enhanced traffic flow, increased capacity and throughput. Improved access to the region will encourage existing businesses to expand and will attract potentially new business, resulting in an increase in the tax base, benefiting all residents of the Commonwealth.

State Transportation Policies-Benefits

Accelerating construction of transportation improvements is one of the primary goals of Virginia's Public Private Transportation Act. However, insufficient funding levels for many projects puts in jeopardy the state's ability to keep pace with needed transportation improvements - such as the Western Extension. Our proposed solution for this important highway leverages infrastructure funding and accelerates the delivery of the improvements, years before any traditional funding plan could possibly deliver. The public is the primary beneficiary of this innovative approach to funding and building the transportation improvements.

Other State Goals-Benefits

The ability to move goods, services, and people in and out of a region is critical to that region's economic vitality. This ability is reliant upon the presence of efficient transportation infrastructure. By providing for the operation of a regional system and the construction of the Western Extension, the Project will provide economic growth opportunities to the region's business base and to its residents. Increased economic opportunities attract investment that in turn provides job creation, ultimately resulting in increased state revenues. As revenues increase, the state can maintain the level of service that residents and businesses have come to expect and enjoy in the Commonwealth of Virginia.

5b. Describe significant benefits to the state's economic condition. Discuss whether this project is critical to attracting or maintaining competitive industries and businesses to the state or region.

By combining the operations of the VDOT Powhite and the Richmond Expressway System, and constructing the Western Extension, the Project will create a regional toll road system that will greatly enhance the transportation link between western Chesterfield County and Richmond. By improving access from these areas to I-95, I-64 and Route 288 will increase the economic base and attractiveness of this region.

Chesterfield County is home to over 278,000 people (based on figures from the 2000 U.S. Census) making the County the second largest locality in the Richmond/Petersburg MSA and the fourth largest county in the Commonwealth of Virginia. The county is one the fastest growing in the state and its population is expected to grow 10% by 2007. Only the counties of Fairfax, Prince William and Henrico, and the City of Virginia Beach have larger populations. The local economy is characterized by a strong industrial base and a diversified economic structure. New commercial and industrial investment has totaled more than \$1 billion since 1996. The county is known for a business climate that is conducive to economic opportunity.

From a transportation perspective, Chesterfield County is located exactly halfway between Boston and Atlanta, with access to 50% of the U.S. population, 65% of the nation's manufacturing operations, and 60% of the corporate headquarters in the country in one day by car or truck. The importance of a roadway system that is efficient and convenient is critical to the continued and future success of the county. As Chesterfield County continues to grow, the need for the Western Extension will only become more apparent to meet the needs of an expanding county.

The importance of Chesterfield County and its future development is of critical importance to the Commonwealth of Virginia

As outlined in more detail in Tab 3 of our proposal, the Western Extension provides significant financial relief to the state's economic condition at a time when resources for new projects are scarce. In addition, the completion of a new transportation facility with a direct link to existing facilities will have a positive impact on the economic condition of the region and on that region's quality of life. It is anticipated that the completion of the Western Extension will accomplish the following:

- Assist in attracting new business to this rapidly growing area
- Encourage positive growth and aid in the retention of existing business
- Decrease the travel times in the region and provide choices for commuters
- Decrease congestion during the daily rush hours, especially in the Route 360 corridor
- Improve regional access.

The Project will improve the movement of goods, services and people throughout the Route 76, US 360, and US 60 corridors. The resulting transportation improvements will enhance the economic value of the region's commercial, manufacturing, retail, and residential sectors, and support future development within these existing transportation corridors, thus helping ensure the long-term vitality of this important economic region.

